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United States  
Department of  
Agriculture

Soil  
Conservation  
Service

Portland,  
Oregon



in cooperation with

Oregon  
Department of  
Water Resources

# Water Supply Outlook for Oregon

## as of APRIL 1, 1981





## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SNOW SURVEYORS MAKING SPECIAL MEASUREMENTS OF THE SNOWPACK  
NEAR MT. ST. HELENS VOLCANO, WASHINGTON, APRIL 1980.

### PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

| STATE              | ADDRESS  |
|--------------------|--|
| Alaska             | Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504     |
| Arizona            | Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025 |
| Colorado (N. Mex.) | P. O. Box 17107, Denver, Colorado 80217                                |
| Idaho              | Room 345, 304 N. 8th. St., Boise, Idaho 83702                          |
| Montana            | P. O. Box 98, Bozeman, Montana 59715                                   |
| Nevada             | P. O. Box 4850, Reno, Nevada 89505                                     |
| Oregon             | 1220 S. W. Third Ave., Portland, Oregon 97204                          |
| Utah               | 4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138    |
| Washington         | 360 U. S. Court House, Spokane, Washington 99201                       |
| Wyoming            | P. O. Box 2440, Casper, Wyoming 82602                                  |

### PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



☆ GPO 796-768

# ***WATER SUPPLY OUTLOOK FOR OREGON***

and  
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

*Issued*

APRIL 1, 1981

*Issued by*

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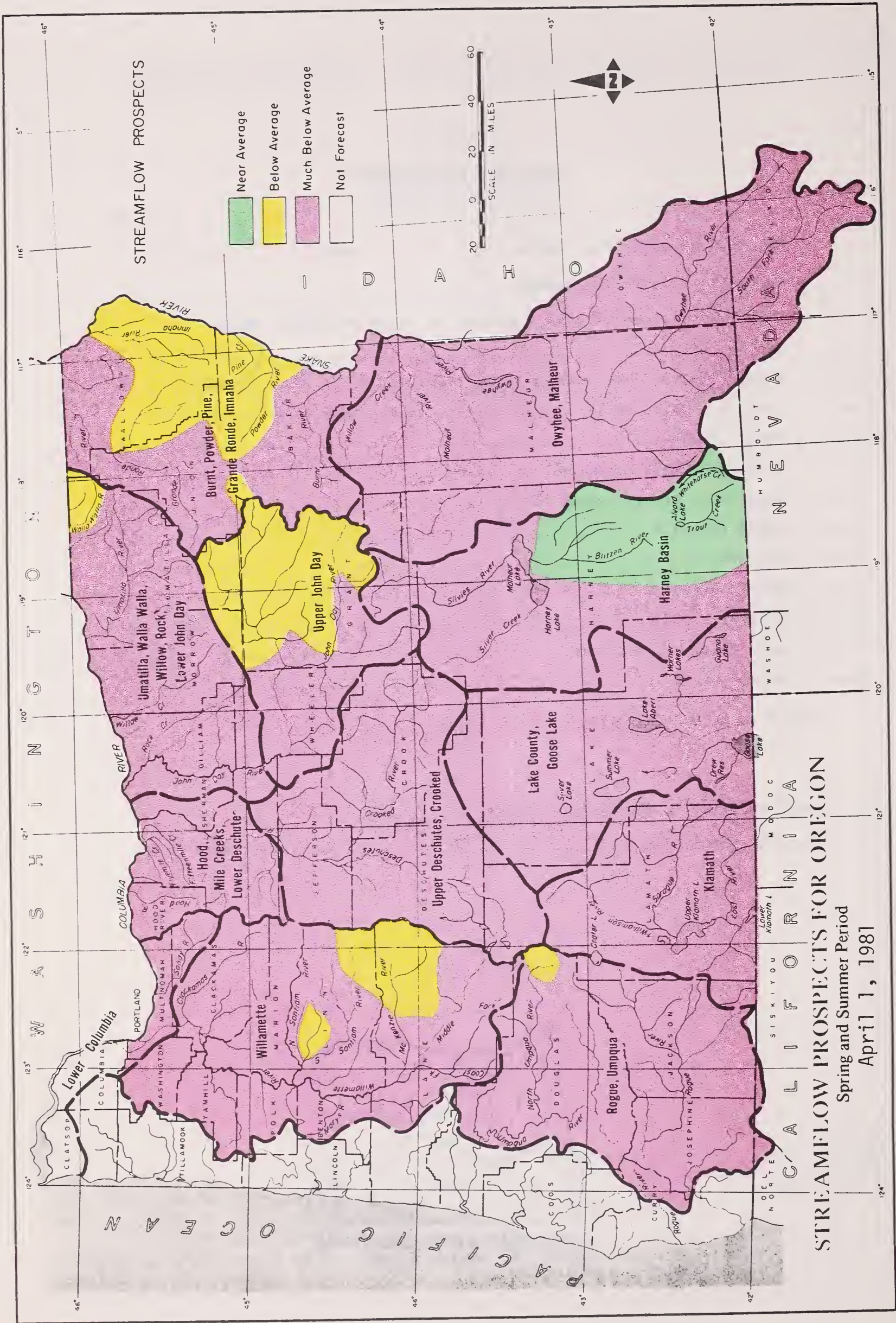
OREGON  
DEPARTMENT  
OF  
WATER RESOURCES

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**STREAMFLOW PROSPECTS FOR OREGON**  
Spring and Summer Period  
April 1, 1981



# WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

APRIL 1, 1981

\*\*\*\*\*  
\*  
\* Adequate water supplies are forecast for most irrigators with access to  
\* reservoir storage, and for water users in the Willamette Valley and southern  
\* Harney County. The rest of the state will have below to much below normal  
\* surface water supplies. Shortages will occur for users dependent upon  
\* direct diversion. The mountain snowpack for the most part is extremely  
\* poor. Precipitation this past month was above normal east of the Cascades  
\* and below average west of the Cascades and in Hood River and Wasco Counties.  
\*  
\*\*\*\*\*

## SNOW COVER

The State of Oregon generally has a very poor snowpack. Twenty-five snow courses set all time record low measurements of snow water equivalent. Forty-four courses equaled the previous low measurements. Some records began as far back as 1929. The worst snow cover exists in the Oregon Cascades and in Klamath and Lake Counties. The snowpack is 4% on the Clackamas and 15% of normal on the Hood River. The Santiam is 12%, Middle Fork of the Willamette is 30% and the McKenzie is 18%. Further south the Umpqua is 2% of average with percentages ranging from 8% to 59% on streams in the Rogue basin. The Upper Klamath basin snow cover is 19% of average. The rest of the state ranges from 28% to about 60%. One area of near normal snowpack does exist in the south half of Harney County in the Steens and Trout Creek mountains. Most percentages except for the eastern 1/3 of the state compare very closely to 1977.

## PRECIPITATION

Precipitation during March was 75% of average west of the Cascades and 50% of normal in the Hood River and Wasco County area. All other areas of the state received normal amounts or above. Lake, Harney and Malheur county precipitation was 140 to 180% of average. Precipitation has been near normal for most of the state since November except in the Rogue and Umpqua basin where it has been only 72% of average.

## RESERVOIR STORAGE

Reservoir storage is generally average to above average and will provide adequate water supplies in most cases. Reservoirs that are much below average in storage for April 1 include Crescent Lake, Clear Lake (Wasco), Fish Lake, Fourmile Lake, Clear Lake (Calif.), Gerber and Thompson Valley. Twenty-six major irrigation reservoirs are currently storing 2,366,000 acre feet. This is 98% of average and 75% of capacity.

-continued on next page-

## STREAMFLOW

Streamflow this past month was near average to above in the north half of the state east of the Cascades. Elsewhere streamflow varied from 29% of average on the Owyhee up to 66% on the Middle Fork of the Willamette. It is important to point out that even though precipitation during March was 184% of average in the Owyhee basin, the inflow to Owyhee Reservoir was only 29%. In addition there was no appreciable increase in the snowpack in this area as it remained the same as last month at 32% of average. The unregulated flow on the Rogue was 48% and the Umpqua at Elkton was 53% for March.

Forecasts of April-July streamflow volumes on representative Oregon streams as a percent of average are as follows:

| <u>STREAM</u>                    | <u>FORECAST</u><br><u>% OF 1963-77 AVG.</u> |
|----------------------------------|---|
| Owyhee net Inflow                | 38%   |
| Malheur nr. Drewsey              | 60%   |
| Deschutes @ Benham Falls         | 67%   |
| Grande Ronde @ La Grande         | 69%   |
| Willamette Mid. Fk. nr. Oakridge | 63%   |
| Upper Klamath Lake net Inflow    | 48%   |
| Rogue @ Raygold                  | 45%   |
| Silvies nr. Burns                | 65%   |

These forecasts assume normal weather conditions will occur from now until the end of the forecast period. If the precipitation is much more or less than normal, streamflow will vary from what is forecast.

The forecasts in this bulletin are a result of coordinated activity between the Soil Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.



# WATER SUPPLY OUTLOOK

## OWYHEE, MALHEUR WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Shortages will be experienced this spring and summer by users who divert water directly from streams. Irrigators who have access to stored water will have adequate supplies. The Malheur River is forecast to flow at 60% of normal and the North Fork of the Malheur will be about 70%. The Owyhee River is forecast to flow at only 38% of normal. The snow cover on the Malheur and Owyhee watersheds is 62% and 32% respectively. The March precipitation was 182% of normal and for the winter season it has been 95%. The reservoirs contain more water than normal for this time of year. Inflow to Owyhee reservoir was only 29% of average during March.



## STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|-------------------------------------|--------------------|--------------------|-----------------|--------------------|----------------------|
|                                     | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|                                     | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Bully Creek at Warm Springs         | 2.9                | 23                 | March-May       |                    | 12.6 <sup>b</sup>    |
| Malheur near Drewsey                | 43                 | 60                 | April-July      |                    | 71                   |
|                                     | 44                 | 60                 | April-Sept.     |                    | 73                   |
| Malheur, North Fork at Beulah       | 43                 | 70                 | April-July      |                    | 61                   |
|                                     | 47                 | 70                 | April-Sept.     |                    | 67                   |
| Owyhee Reservoir net Inflow         | 139                | 38                 | April-July      | 352                | 365                  |
|                                     | 150                | 38                 | April-Sept.     | 387                | 392                  |
| Owyhee at Rome                      | 137                | 38                 | April-July      |                    | 361 <sup>b</sup>     |
| Succor Creek near Jordan Valley     | 5.0                | 54                 | April-July      |                    | 9.2 <sup>b</sup>     |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT   | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|------------------|---------------------------|--|--------------------------------|
| Owyhee near Rome | 2000                      | April 20   | May 14                         |
|                  | 1000                      | May 10   | May 28                         |
|                  | 500                       | May 15   | June 11                        |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR        | Usable Capacity | Usable Storage |           |                      |
|------------------|-----------------|----------------|-----------|----------------------|
|                  |                 | This Year      | Last Year | Average <sup>c</sup> |
| Beulah Reservoir | 60.0            | 41.8           | 50.0      | 43.9                 |
| Bully Creek      | 30.0            | 27.2           | 26.4      | 22.3                 |
| Owyhee           | 715.0           | 605.6          | 699.0     | 581.1                |
| Warm Springs     | 191.0           | 177.9          | 158.3     | 126.1                |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Jordan Creek                     | 3                          | 32                                   | 42                   |
| Malheur River                    | 5                          | 67                                   | 62                   |
| Owyhee River                     | 6                          | 21                                   | 32                   |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



The streamflow is forecast to be below normal this spring and summer. There may be shortages for users obtaining water directly from streams; however, there is adequate water available for those with access to stored water supplies. In general the major rivers and creeks are forecast to flow from 69% to 85% of normal. The best amounts of streamflow will emanate from the Wallowa mountains. The snow cover ranges from 41% to 61% of average. The precipitation over the area was 114% of the March average and for the winter season it was 96%. Reservoir storage is very good. Eagle Creek, Catherine Creek and the Powder will recede about two weeks early. Deer Creek will recede about a month early.



# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT            | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|--|--------------------|--------------------|-----------------|--------------------|----------------------|
|  | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Anthony Creek blw. North Fork nr. North Powder | 11.6               | 75                 | April-July      |                    | 15.5                 |
| Bear near Wallowa                              | 49                 | 74                 | April-Sept.     |                    | 65                   |
| Big Creek blw. Burn Creek nr. Medical Spring   | 7.1                | 70                 | April-July      |                    | 10.1                 |
| Burnt near Hereford                            | 19.2               | 55                 | April-July      |                    | 35                   |
|  | 20                 | 56                 | April-Sept.     |                    | 36                   |
| Catherine near Union                           | 44                 | 69                 | April-Sept.     |                    | 64                   |
| Deer Creek abv. Phillips Res. nr. Sumpter      | 7.5                | 50                 | April-July      |                    | 15.0 <sup>b</sup>    |
| Eagle Creek abv. Skull Creek                   | 134                | 79                 | April-July      |                    | 169                  |
|  | 147                | 79                 | April-Sept.     |                    | 184                  |
| Grande Ronde at La Grande                      | 108                | 69                 | April-July      | 178                | 157                  |
|  | 111                | 69                 | April-Sept.     | 184                | 161                  |
| Hurricane near Joseph                          | 37                 | 80                 | April-Sept.     |                    | 46                   |
| Immaha at Immaha                               | 244                | 80                 | April-Sept.     |                    | 305                  |
| Lostine near Lostine                           | 98                 | 80                 | April-Sept.     |                    | 123                  |
| Pine Creek nr. Oxbow                           | 136                | 70                 | April-July      |                    | 194 <sup>b</sup>     |
| Powder near Sumpter                            | 45                 | 79                 | April-July      |                    | 57                   |
|  | 46                 | 79                 | April-Sept.     |                    | 58                   |
| Wallowa, East Fork near Joseph                 | 7.3                | 80                 | April-July      |                    | 9.1                  |
|  | 9.1                | 80                 | April-Sept.     |                    | 11.4                 |
| Wallowa at Joseph                              | 58                 | 85                 | May-July        |                    | 69                   |
| Wolf Creek Res. net Inflow                     | 4.8                | 40                 | April-June      |                    | 12.1                 |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR     | Usable Capacity | Usable Storage |           |                      |
|---------------|-----------------|----------------|-----------|----------------------|
|               |                 | This Year      | Last Year | Average <sup>c</sup> |
| Phillips Lake | 73.5            | N/R            | 51.2      | 52.3                 |
| Thief Valley  | 17.4            | 17.7           | 17.4      | 17.4                 |
| Unity         | 25.2            | 25.1           | 23.8      | 19.6                 |
| Wallowa Lake  | 37.5            | 28.8           | 19.0      | 23.5                 |
| Wolf Creek    | 10.4            | 8.8            | 4.3       | --                   |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Burnt River                      | 4                          | 70                                   | 53                   |
| Grande Ronde River               |                            |                                      |                      |
| above LaGrande                   | 3                          | 48                                   | 41                   |
| Powder River                     | 5                          | 52                                   | 51                   |
| Wallowa, Immaha, Catherine Creek | 6                          | 61                                   | 61                   |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT                        | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|---------------------------------------|---------------------------|--|--------------------------------|
| Eagle Cr.abv.Skull Cr.                | 225                       | July 15  | July 25                        |
|                                       | 160                       | July 31  | Aug. 5                         |
|                                       |                           |  | Avg.value                      |
| Catherine Cr.nr.Union                 | 32                        | Aug. 1   | 49                             |
|                                       | 100                       | June 25  | July 9                         |
|                                       | 50                        | July 15  | July 28                        |
| Powder near Sumpter                   | 100                       | May 30   | June 25                        |
|                                       | 20                        | July 10  | July 22                        |
| Deer Cr.abv. Phillips Res.nr. Sumpter | 40                        | May 17   | June 17                        |
|                                       | 10                        | June 7   | July 6                         |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



## GENERAL OUTLOOK

10 0 10 20 30 MILES  
SCALE 1:1,500,000



## STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT      | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|--|--------------------|--------------------|-----------------|--------------------|----------------------|
|  | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Butter Creek nr. Pine City               | 5.1                | 68                 | April-July      |                    | 7.5                  |
| Couse Creek nr. Milton Freewater         | 2.1                | 55                 | April-July      |                    | 4.0 <sup>b</sup>     |
| McKay near Pilot Rock                    | 14.5               | 66                 | April-Sept.     |                    | 22                   |
| Pine Creek near Weston                   | 1.4                | 52                 | April-July      |                    | 2.8 <sup>b</sup>     |
| Rhea Creek nr. Heppner                   | 2.7                | 65                 | April-July      |                    | 4.2                  |
| Rock Creek abv. Cayuse Canyon nr. Condon | 5.4                | 60                 | April-July      |                    | 9.0 <sup>b</sup>     |
| Umatilla near Gibbon                     | 48                 | 67                 | April-July      |                    | 72                   |
|  | 54                 | 70                 | April-Sept.     |                    | 78                   |
| Umatilla at Pendleton                    | 94                 | 65                 | April-July      |                    | 145                  |
|  | 98                 | 65                 | April-Sept.     |                    | 150                  |
| Walla Walla, South Fork near Milton      | 40                 | 73                 | April-July      |                    | 55                   |
|  | 54                 | 78                 | April-Sept.     |                    | 69                   |
| Willow Creek at Heppner                  | 3.3                | 65                 | April-July      |                    | 5.1                  |

## FORECAST DATE of LOW FLOW VALUES

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| FORECAST POINT                  | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value | RESERVOIR    | Usable Capacity | Usable Storage |           |                      |
|---------------------------------|---------------------------|--|--------------------------------|--------------|-----------------|----------------|-----------|----------------------|
|                                 |                           |  |                                |              |                 | This Year      | Last Year | Average <sup>c</sup> |
| Umatilla at Pendleton           | 550                       | April 25   | May 17                         | Cold Springs | 50.0            | 48.0           | 47.6      | 47.3                 |
| So. Fk. Walla Walla near Milton | 200                       | May 15   | June 9                         | McKay        | 73.8            | 63.9           | 61.4      | 47.5                 |
|                                 | 99                        | Aug.-Sept. Min.                                    | Avg. value 105                 |              |                 |                |           |                      |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| McKay Creek                      | 3                          | 53                                   | 43                   |
| Umatilla River                   | 3                          | 58                                   | 46                   |
| Walla Walla River                | 2                          | 59                                   | 40                   |



# WATER SUPPLY OUTLOOK

## UPPER JOHN DAY WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The streamflow forecasts are much below average except for the North Fork of the John Day and Strawberry Creek which are below normal. Water users depending on streamflow for direct diversions will most likely experience some shortages this year. The snow cover is much below average (49 to 63% of normal). The precipitation during March was 124% of normal and for the winter season it was 92%.



# STREAMFLOW FORECASTS

| STREAMFLOW FORECASTS                | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|-------------------------------------|--------------------|--------------------|-----------------|--------------------|----------------------|
| BASIN, STREAM and/or FORECAST POINT | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|                                     | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Camas Creek near Ukiah              | 17.8               | 54                 | April-July      |                    | 33                   |
|                                     | 18.4               | 54                 | April-Sept.     |                    | 34                   |
| John Day, Middle Fork at Ritter     | 75                 | 69                 | April-July      |                    | 109                  |
|                                     | 78                 | 69                 | April-Sept.     |                    | 113                  |
| John Day, North Fork at Monument    | 385                | 73                 | April-July      |                    | 526                  |
|                                     | 400                | 74                 | April-Sept.     |                    | 541                  |
| Mountain Creek nr. Mitchell         | 2.0                | 64                 | April-July      |                    | 3.1 <sup>b</sup>     |
| Strawberry near Prairie City        | 5.7                | 80                 | April-July      |                    | 7.1                  |
|                                     | 6.2                | 80                 | April-Sept.     |                    | 7.7                  |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT          | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|-------------------------|---------------------------|--|--------------------------------|
| John Day at Service Cr. | 131                       | Aug. 1   | Avg.value 212                  |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| John Day, North Fork             | 7                          | 57                                   | 49                   |
| John Day abv. Dayville           | 5                          | 66                                   | 63                   |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# UPPER DESCHUTES, CROOKED WATERSHEDS

## OREGON

### GENERAL OUTLOOK

Much below average is the outlook for streamflow this spring and summer. There may be shortages for those who divert directly from streams. Adequate water is available to users with access to stored water supplies except for Crescent Lake. The snow-pack ranges from 28% on the Little Deschutes to 55% on the Crooked and Ochoco watersheds. An all time new low water content was measured at two snow courses. Precipitation has been normal for March and the winter season as a whole. Squaw and Tumalo Creeks will recede about a month early. Little Deschutes River will recede about a month and a half early.



# STREAMFLOW FORECASTS

| STREAMFLOW FORECASTS                         | THIS YEAR          |                    |                 | PAST RECORD        |                  |
|--|--------------------|--------------------|-----------------|--------------------|------------------|
| BASIN, STREAM and/or FORECAST POINT          | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                  |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average C        |
| Beaver Creek near Paulina                    | 11.2               | 70                 | April-July      |                    | 16.0             |
|  | 11.3               | 70                 | April-Sept.     |                    | 16.1             |
| Crane Prairie Reservoir total Inflow         | 50                 | 65                 | April-July      |                    | 77               |
|  | 77                 | 65                 | April-Sept.     |                    | 120              |
| Crescent at Crescent Lake                    | 5.0                | 28                 | April-July      |                    | 17.8             |
|  | 6.2                | 28                 | April-Sept.     |                    | 22               |
| Crooked River nr. Prineville                 | 51                 | 57                 | April-July      |                    | 89               |
|  | 51                 | 57                 | April-Sept.     |                    | 90               |
| Crooked R.,No.Fk.blw. Lookout Cr.nr. Paulina | 5.9                | 60                 | April-July      |                    | 9.9 <sup>b</sup> |
| Deschutes below Bend                         | 129                | --                 | Aug.-Sept.      |                    | --               |
| Deschutes at Benham Falls                    | 246                | 67                 | April-July      |                    | 368              |
|  | 478                | 67                 | April-Sept.     |                    | 713              |
| Deschutes below Snow Creek                   | 43                 | 68                 | April-Sept.     |                    | 63               |
| Deschutes, Little near La Pine               | 30                 | 40                 | April-July      |                    | 74               |
|  | 34                 | 40                 | April-Sept.     |                    | 84               |
| Ochoco Reservoir net Inflow                  | 9.1                | 57                 | April-Sept.     |                    | 16.0             |
| Squaw near Sisters                           | 32                 | 65                 | April-Sept.     |                    | 49               |
| Tumalo near Bend                             | 30                 | 66                 | April-Sept.     |                    | 45               |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT               | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value         |
|------------------------------|---------------------------|--|--|
| Crane Prairie net Inflow     | 220<br>221<br>Peak        | Peak<br>Oct. 31<br>May 21                          |  |
| Deschutes at Bend            | 1500                      | *  | July 1                                 |
| Little Deschutes nr. La Pine | 400<br>200                | **<br>May 20                                       | June 7<br>July 8                       |
| Squaw Cr. nr. Sisters        | 100                       | July 20  | Aug. 16                                |
| Tumalo Cr. nr. Bend          | 235<br>207<br>150<br>71   | May 30<br>May 31<br>June 8<br>June 26              | June 23<br>June 25<br>July 5<br>Aug. 7 |

\* Will not reach 1500 cfs.

\*\* Will not reach 400 cfs.

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR     | Usable Capacity | Usable Storage |           |                      |
|---------------|-----------------|----------------|-----------|----------------------|
|               |                 | This Year      | Last Year | Average <sup>c</sup> |
| Crane Prairie | 55.3            | 32.4           | 30.6      | 47.2                 |
| Crescent Lake | 86.9            | 27.2           | 29.1      | 65.1                 |
| Ochoco        | 47.5            | 44.4           | 43.3      | 33.8                 |
| Prineville    | 153.0           | 156.0          | 147.2     | 103.8                |
| Wickiup       | 200.0           | 179.4          | 178.5     | 190.4                |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Crooked, Ochoco                  | 4                          | 63                                   | 55                   |
| Deschutes abv. Wickiup           | 3                          | 56                                   | 43                   |
| Little Deschutes                 | 4                          | 57                                   | 28                   |
| Tumalo & Squaw Crs.              | 3                          | 45                                   | 34                   |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK

## HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

Streamflow is forecast to be much below normal this spring and summer. The Hood River will be 50% of normal while the White River will only be 40%. Shortages may exist for all users in this area. Clear Lake (Wasco), which is presently at 57% of normal for this time of year, is forecast not to fill this season. The snowpack is in very poor condition with new low values being measured on Mt. Hood. The snow cover ranges from 0% on the Mile Creeks to 20% of normal on the White River watershed. Precipitation for March has been very low, only 52% of normal. The winter precipitation is 90% of normal. The White River will recede about a month early this summer. The average Clear Branch inflow for the last two weeks in July is forecast to be only half of normal.

10 0 10 20 MILES  
SCALE 1:1,000,000



## STREAMFLOW FORECASTS

| STREAMFLOW FORECASTS                       | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|--|--------------------|--------------------|-----------------|--------------------|----------------------|
| BASIN, STREAM and/or FORECAST POINT        | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Hood River at Tucker Bridge nr. Hood River | 121                | 50                 | April-July      |                    | 242                  |
|  | 144                | 50                 | April-Sept.     |                    | 289                  |
| Hood River, West Fork near Dee             | 64                 | 50                 | April-July      |                    | 127                  |
|  | 74                 | 50                 | April-Sept.     |                    | 149                  |
| White below Tygh Valley                    | 46                 | 40                 | April-July      |                    | 114                  |
|  | 52                 | 40                 | April-Sept.     |                    | 129                  |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT  | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|---|---------------------------|--|--------------------------------|
| Clear Branch Inflow                                     | *20                       | July 15-31   | **39                           |
| *Average cfs forecast to flow for this two-week period. |                           |  |                                |
| **Average cfs for period of record.                     |                           |  |                                |
| White blw. Tygh Valley                                  | 200                       | June 1   | July 3                         |
|   | 98                        | Aug. 1   | Avg.value 145                  |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR          | Usable Capacity | Usable Storage |           |                      |
|--------------------|-----------------|----------------|-----------|----------------------|
|                    |                 | This Year      | Last Year | Average <sup>c</sup> |
| Clear Lake (Wasco) | 11.9            | 2.9            | 2.2       | 5.1                  |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Hood River                       | 5                          | 15                                   | 15                   |
| Mile Creeks                      | 1                          | 0                                    | 0                    |
| White River                      | 3                          | 20                                   | 20                   |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# WATER SUPPLY OUTLOOK

## LOWER COLUMBIA WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The streamflow forecast for the Columbia River at The Dalles is 69% of normal, while the Sandy River will be much below average at 56%. The snow cover for the entire Columbia basin is 65% of normal and only 22% on the Sandy watershed. Since the spring and summer flow on the Columbia is forecast to be low, the regulated flows below The Dalles will be lower than normal. Water users depending on the Sandy River may experience some late season shortages this year.



## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN<br>and/or<br>SUB-WATERSHED | Number of<br>Courses<br>Averaged | THIS YEAR'S SNOW<br>WATER AS PERCENT OF |                      |
|--|----------------------------------|---|----------------------|
|  |                                  | Last Year                               | Average <sup>c</sup> |
| Sandy River                            | 2                                | 21                                      | 22                   |

## STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT | THIS YEAR             |                       |                    | PAST RECORD        |                      |
|-------------------------------------|-----------------------|-----------------------|--------------------|--------------------|----------------------|
|                                     | FORECAST              |                       | FORECAST<br>PERIOD | THOUSAND ACRE FEET |                      |
|                                     | Thousand<br>Acre Feet | Percent of<br>Average |                    | Last Year          | Average <sup>c</sup> |
| Columbia at The Dalles              | 59,800                | 68                    | April-July         |                    | 88,520               |
|                                     | 71,400                | 69                    | April-Sept.        |                    | 103,500              |
| Sandy River near Marmot             | 184                   | 56                    | April-July         |                    | 329                  |
|                                     | 215                   | 56                    | April-Sept.        |                    | 384                  |

## HISTORICAL DATA (Columbia River at The Dalles)

| YEAR         | STREAMFLOW <sup>d</sup> (1,000 A F) |            |            | REGULATED PEAK<br>(1,000 cfs) | DATE       |
|--------------|-------------------------------------|------------|------------|-------------------------------|------------|
|              | APR — SEPT.                         | APR — JUNE | MAY — JUNE |                               |            |
| 1963         | 87,860                              | 58,499     | 47,812     | 437                           | June 18    |
| 1964         | 110,422                             | 73,512     | 63,670     | 662                           | June 18    |
| 1965         | 114,222                             | 80,098     | 62,467     | 520                           | June 9     |
| 1966         | 87,386                              | 58,250     | 45,962     | 396                           | June 12    |
| 1967         | 109,319                             | 74,378     | 66,452     | 622                           | June 10    |
| 1968         | 89,102                              | 55,593     | 47,994     | 404                           | June 13    |
| 1969         | 112,377                             | 85,742     | 63,899     | 515                           | May 15     |
| 1970         | 88,243                              | 62,993     | 55,227     | 425                           | May 28     |
| 1971         | 126,898                             | 91,781     | 76,453     | 557                           | May 13     |
| 1972         | 135,500                             | 97,041     | 81,451     | 619                           | June 20    |
| 1973         | 65,549                              | 43,765     | 36,565     | 221                           | December 5 |
| 1974         | 139,501                             | 99,035     | 78,946     | 588                           | June 20    |
| 1975         | 108,906                             | 73,018     | 62,861     | 422                           | May 17     |
| 1976         | 122,771                             | 79,084     | 62,554     | 418                           | May 14     |
| 1977         | 54,108                              | 35,505     | 28,394     | 213                           | January 25 |
| 1963-77 Avg. | 103,478                             | 71,220     | 58,714     | 468                           |            |

## LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

| VANCOUVER<br>GAGE<br>(Weather Bu) | FLOW AT<br>THE DALLES<br>(1,000 cfs) | DRAINAGE DISTRICT PUMPHOUSE |             |           |           |         |        |         |
|-----------------------------------|--------------------------------------|-----------------------------|-------------|-----------|-----------|---------|--------|---------|
|                                   |                                      | SANDY                       | SAUVIE ISL. | SCAPPOOSE | DEER ISL. | RAINIER | BEAVER | WOODSON |
|                                   |                                      | RIVER MILES                 |             |           |           |         |        |         |
|                                   |                                      | 118.9                       | 96.0        | 91.0      | 77.0      | 62.0    | 52.0   | 47.0    |
| 35 (1894)                         | 1210                                 | 41.2                        | 34.2        | 33.3      | 28.5      | 21.9    | 17.5   | 15.5    |
| 34                                | 1160                                 | 40.5                        | 33.5        | 32.5      | 27.7      | 21.2    | 17.0   | 15.0    |
| 33                                | 1100                                 | 39.6                        | 32.4        | 31.4      | 26.7      | 20.2    | 16.1   | 14.3    |
| 32 (1972)                         | 1050                                 | 38.9                        | 31.5        | 30.5      | 25.7      | 19.5    | 15.4   | 13.7    |
| 31 (1948)                         | 1000                                 | 38.0                        | 30.7        | 29.5      | 25.1      | 18.8    | 14.7   | 13.0    |
| 30                                | 943                                  | 36.6                        | 29.5        | 28.5      | 24.3      | 18.1    | 14.0   | 12.4    |
| 29                                | 897                                  | 35.5                        | 28.5        | 27.7      | 23.7      | 17.5    | 13.4   | 11.8    |
| 28                                | 853                                  | 34.3                        | 27.5        | 26.7      | 22.8      | 17.0    | 13.0   | 11.4    |
| 27 (1956)                         | 811                                  | 33.0                        | 26.5        | 25.6      | 21.8      | 16.2    | 12.5   | 11.0    |
| 26 (1950)                         | 771                                  | 32.1                        | 25.5        | 24.6      | 20.9      | 15.5    | 12.2   | 10.7    |
| 25                                | 733                                  | 30.7                        | 24.2        | 23.2      | 19.7      | 14.6    | 11.7   | 10.3    |
| 24                                | 697                                  | 29.7                        | 23.0        | 22.2      | 19.0      | 14.1    | 11.4   | 10.2    |
| 23                                | 662                                  | 29.0                        | 22.3        | 21.4      | 18.4      | 13.6    | 11.2   | 10.0    |
| 22                                | 628                                  | 28.1                        | 21.4        | 20.3      | 17.2      | 13.0    | 10.9   | 9.7     |
| 21                                | 595                                  | 27.2                        | 20.7        | 19.5      | 16.4      | 12.6    | 10.6   | 9.6     |
| 20 (1954)                         | 564                                  | 26.2                        | 19.8        | 18.6      | 15.5      | 12.1    | 10.2   | 9.4     |
| 19                                | 534                                  | 25.5                        | 19.2        | 18.0      | 15.0      | 11.8    | 10.0   | 9.3     |
| 18                                | 501                                  | 24.4                        | 18.3        | 17.2      | 14.3      | 11.4    | 9.8    | 9.1     |
| 17                                | 479                                  | 23.4                        | 17.4        | 16.4      | 13.7      | 11.0    | 9.6    | 8.9     |
| 16                                | 452                                  | 22.4                        | 16.5        | 15.5      | 13.0      | 10.5    | 9.3    | 8.7     |



The streamflow forecasts for the Willamette Valley are much below average. Although the forecasts range from 58% of normal to 70%, water users who divert directly from streams will probably have adequate water this spring and summer. Adequate water is also available from stored water supplies to users with access. The snowpack is very poor; it ranges from 4% on the Clackamas River to 30% on the Middle Fork of the Willamette. The precipitation has also been poor with a March figure of 75% of normal and a winter season total of 85%.



## STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT         | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|---|--------------------|--------------------|-----------------|--------------------|----------------------|
|   | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|   | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Clackamas at Estacada                       | 405                | 60                 | April-July      |                    | 674                  |
|   | 473                | 60                 | April-Sept.     |                    | 788                  |
| Clackamas above Three Lynx                  | 300                | 58                 | April-July      |                    | 515                  |
|   | 354                | 58                 | April-Sept.     |                    | 610                  |
| McKenzie at McKenzie Bridge                 | 325                | 72                 | April-July      |                    | 452                  |
|   | 430                | 72                 | April-Sept.     |                    | 598                  |
| McKenzie near Vida                          | 700                | 68                 | April-July      |                    | 1024                 |
|   | 860                | 68                 | April-Sept.     |                    | 1259                 |
| McKenzie, So. Fork near Rainbow             | 130                | 63                 | April-July      |                    | 207                  |
|   | 147                | 63                 | April-Sept.     |                    | 234                  |
| Mohawk River near Springfield               | 43                 | 70                 | April-July      |                    | 62                   |
| Oak Grove Fork above Power Intake           | 88                 | 64                 | April-July      |                    | 137                  |
|   | 112                | 64                 | April-Sept.     |                    | 175                  |
| Row near Dorena                             | 69                 | 70                 | April-July      |                    | 98                   |
|   | 73                 | 70                 | April-Sept.     |                    | 104                  |
| Santiam, North at Mehama                    | 504                | 67                 | April-July      |                    | 752                  |
|   | 576                | 67                 | April-Sept.     |                    | 860                  |
| Santiam, South at Waterloo                  | 366                | 67                 | April-July      |                    | 547                  |
|   | 407                | 69                 | April-Sept.     |                    | 590                  |
| Scoggins Creek nr. Gaston                   | 9.0                | 70                 | April-July      |                    | 12.9                 |
| Thomas Creek near Scio                      | 53                 | 75                 | April-July      |                    | 71                   |
| Willamette, Coast Fork nr. London           | 19.1               | 70                 | April-July      |                    | 27                   |
| Willamette, Mid.Fk.blw. N. Fk. nr. Oakridge | 430                | 63                 | April-July      | 559                | 678                  |
|   | 489                | 63                 | April-Sept.     | 625                | 776                  |
| Willamette, No.Fk. of Mid.Fk. near Oakridge | 110                | 58                 | April-July      |                    | 188                  |
|   | 121                | 58                 | April-Sept.     |                    | 209                  |
| Willamette at Salem                         | 2909               | 69                 | April-July      |                    | 4213                 |
|   | 3240               | 69                 | April-Sept.     |                    | 4697                 |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Clackamas River                  | 1                          | 7                                    | 4                    |
| McKenzie River                   | 3                          | 36                                   | 18                   |
| Row River                        | 2                          | 33                                   | 10                   |
| Santiam River                    | 4                          | 31                                   | 12                   |
| Willamette, Mid. Fk.             | 5                          | 57                                   | 30                   |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR       | Usable Capacity | Usable Storage |           |                      |
|-----------------|-----------------|----------------|-----------|----------------------|
|                 |                 | This Year      | Last Year | Average <sup>c</sup> |
| Blue River      | 85.6*           | 58.1           | 54.3      | 50.0                 |
| Cottage Grove   | 30.0*           | 20.3           | 16.4      | 16.5                 |
| Cougar          | 155.2*          | 83.0           | 82.9      | 74.4                 |
| Detroit         | 299.9*          | 199.8          | 180.2     | 158.0                |
| Dorena          | 70.5*           | 50.6           | 39.1      | 38.8                 |
| Fall Creek      | 115.0*          | 79.1           | 76.8      | 70.5                 |
| Fern Ridge      | 94.2*           | 78.0           | 77.7      | 72.4                 |
| Foster          | 30.0*           | 2.9            | 7.8       | 11.2                 |
| Green Peter     | 270.0*          | 209.9          | 170.3     | 161.3                |
| Hills Creek     | 200.0*          | 124.2          | 120.8     | 111.8                |
| Lookout Point   | 337.2*          | 128.0          | 115.0     | 157.9                |
| Timothy Lake    | 61.7            | 46.4           | 34.5      | 53.5                 |
| Henry Hagg Lake | 53.0            | 48.9           | 50.0      | --                   |

\* Multiple purpose reservoir--space reserved primarily for flood runoff.

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



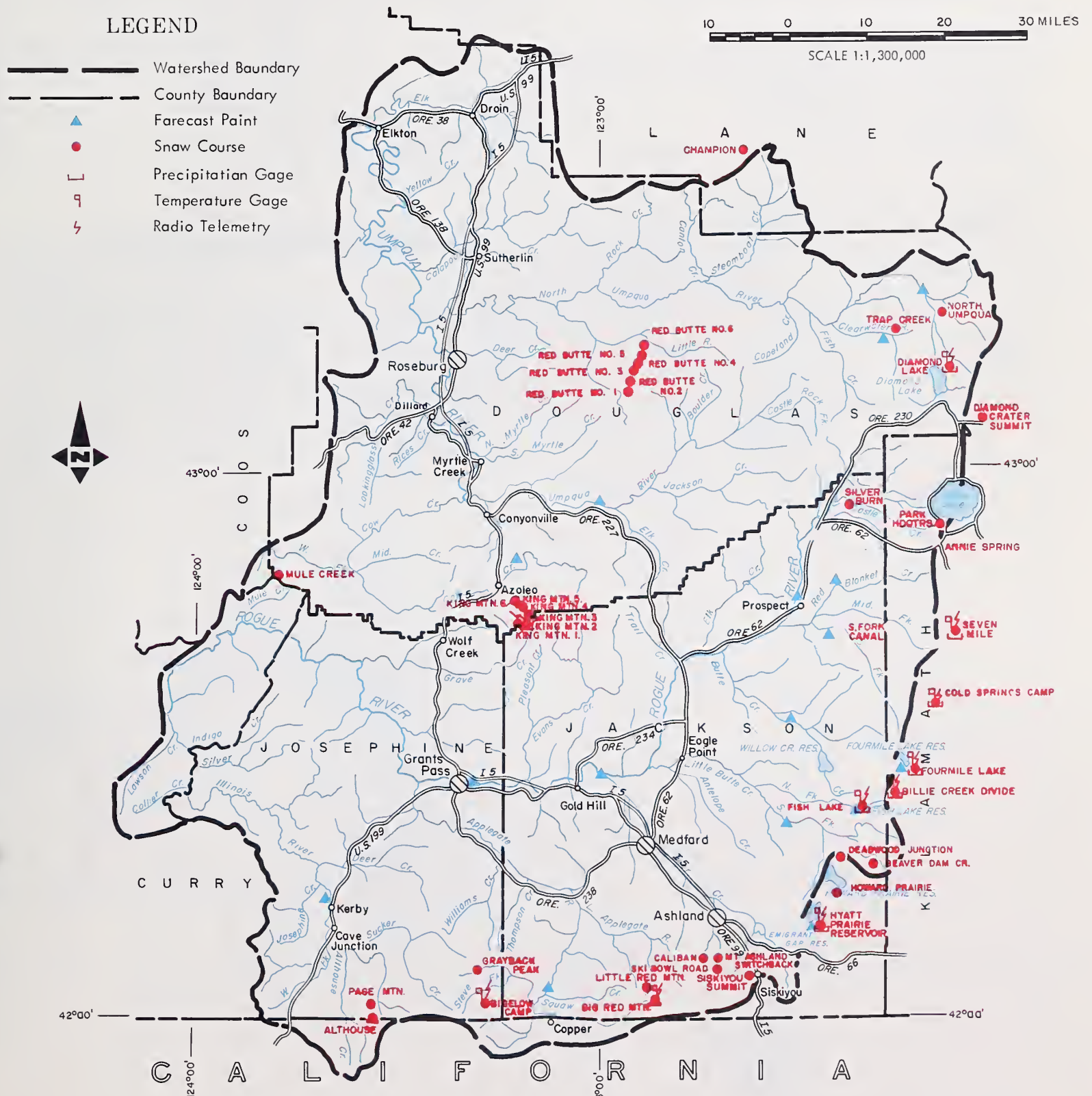
# WATER SUPPLY OUTLOOK

## ROGUE, UMPQUA, WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The streamflow in the Rogue and Umpqua Rivers is forecast to be much below average this spring and summer. The flows should range from 31% of average on the Applegate to 62% on the North Umpqua. Water users dependent on direct diversion of streamflow for irrigation water will experience shortages this season. Users with access to stored water supplies should have adequate water available except for Fish Lake and Fourmile Lake users. Respectively these reservoirs are at 70% and 57% of storage for this time of year and it is forecast that they will not fill. The snowpack is very poor; ranging from 2% on the North Umpqua to 49% on Bear Creek. Precipitation has been very low; 77% for March and 72% for the total winter season.



# STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT            | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|--|--------------------|--------------------|-----------------|--------------------|----------------------|
|  | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Applegate near Copper                          | 40                 | 31                 | April-Sept.     |                    | 129                  |
| Clearwater above Trap Creek                    | 53                 | 74                 | April-Sept.     |                    | 71                   |
| Cow Creek nr. Azalea                           | 8.0                | 45                 | April-July      |                    | 17.6                 |
| Fourmile Lake net Inflow                       | 2.0                | 51                 | April-Sept.     |                    | 3.9                  |
| Grave Creek at Pease Bridge nr. Placer         | 3.5                | 45                 | April-July      |                    | 7.7                  |
| Hyatt Reservoir net Inflow                     | 1.7                | 35                 | April-July      |                    | 4.9                  |
| Illinois River near Kerby                      | 76                 | 43                 | April-July      |                    | 176                  |
|  | 80                 | 44                 | April-Sept.     |                    | 183                  |
| Little Butte, N.Fk. at Fish Lake nr. Lake Cr.  | 5.1                | 41                 | April-Sept.     |                    | 14.0                 |
| Little Butte, S. Fk. near Lake Creek           | 14.1               | 45                 | April-July      |                    | 31                   |
| Red Blanket Creek nr. Prospect                 | 17.7               | 50                 | April-July      |                    | 35                   |
| Rogue above Prospect                           | 128                | 50                 | April-July      |                    | 257                  |
|  | 157                | 50                 | April-Sept.     |                    | 314                  |
| Rogue, South Fork near Prospect                | 30                 | 48                 | April-July      |                    | 62                   |
|  | 38                 | 52                 | April-Sept.     |                    | 74                   |
| Rogue at Raygold near Central Point            | 337                | 45                 | April-July      | 594                | 756                  |
|  | 461                | 50                 | April-Sept.     | 728                | 919                  |
| Rogue at Grants Pass                           | 450                | 49                 | April-Sept.     |                    | 913                  |
| Sucker Cr. blw. Little Grayback nr. Holland    | 19.3               | 33                 | April-July      |                    | 58                   |
| Umpqua, No. blw. Lemolo Lake nr. Toketee Falls | 108                | 64                 | April-Sept.     |                    | 170                  |
| Umpqua, No. at Winchester                      | 480                | 62                 | April-July      |                    | 768                  |
| Umpqua, So. near Brockway                      | 180                | 47                 | April-July      |                    | 380                  |
| Umpqua, So. at Tiller                          | 91                 | 50                 | April-July      |                    | 183                  |
| So.Fk. Big Butte Cr. nr. Butte Falls           | 18.5               | 50                 | April-July      |                    | 37                   |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT                 | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|--------------------------------|---------------------------|--|--------------------------------|
| Cow Creek nr. Azalea           | 20                        | June 10  | July 4                         |
|                                | 10                        | July 15  | Aug. 19                        |
| Little Butte Creek, South Fork | 100                       | April 12   | May 15                         |
| South Umpqua nr. Brockway      | 90                        | July 1   | July 30                        |
| South Umpqua at Tiller         | 140                       | June 15  | July 10                        |
|                                | 90                        | July 5   | July 30                        |
|                                | 60                        | July 24  | Aug. 27                        |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR      | Usable Capacity | Usable Storage |           |                      |
|----------------|-----------------|----------------|-----------|----------------------|
|                |                 | This Year      | Last Year | Average <sup>c</sup> |
| Emigrant Lake  | 39.0            | 34.5           | 39.0      | 36.1                 |
| Fish Lake      | 8.0             | 4.3            | 5.4       | 6.1                  |
| Fourmile Lake  | 16.1            | 6.0            | 8.2       | 10.6                 |
| Howard Prairie | 60.0            | 44.0           | 60.6      | 47.9                 |
| Hyatt Prairie  | 16.1            | 12.0           | 15.6      | 13.3                 |
| Lost Creek     | 315.0           | 285.0          | 280.9     | --                   |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Applegate                        | 2                          | 44                                   | 32                   |
| Bear Creek                       | 3                          | 66                                   | 49                   |
| Butte Creek                      | 4                          | 16                                   | 8                    |
| Illinois River                   | 3                          | 16                                   | 10                   |
| North Umpqua                     | 3                          | 8                                    | 2                    |
| Rogue River                      | 4                          | 41                                   | 24                   |
| Mt. Ashland                      | 4                          | 59                                   | 49                   |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



Streamflow in Klamath County is forecast to be much below average this season. The forecasts range from 25% for the Clear Lake inflow to 50% for the Upper Klamath Lake net inflow. Users depending on direct diversion of streamflow will experience shortages this year. Users with access to stored water will have adequate water available. Clear Lake and Gerber reservoirs, respectively, have 65% and 67% of normal amounts of water for this time of year. These reservoirs will not fill this year. The snowpack in the area is generally poor. It ranges from 4% on the Williamson to 52% on the Lost River. Precipitation for March was 109% of normal and 95% of normal for the total winter season.



## STREAMFLOW FORECASTS

| STREAMFLOW FORECASTS                | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|-------------------------------------|--------------------|--------------------|-----------------|--------------------|----------------------|
| BASIN, STREAM and/or FORECAST POINT | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|                                     | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Clear Lake Reservoir Inflow         | 10.0               | 24                 | April-July      | 301<br>361         | 42                   |
|                                     | 11.0               | 25                 | April-Sept.     |                    | 44                   |
| Gerber Reservoir Inflow             | 7.6                | 39                 | April-July      |                    | 19.5                 |
|                                     | 8.0                | 40                 | April-Sept.     |                    | 20.0                 |
| Sprague near Chiloquin              | 74                 | 35                 | April-July      |                    | 212                  |
|                                     | 84                 | 35                 | April-Sept.     |                    | 242                  |
| Upper Klamath Lake net Inflow       | 213                | 48                 | April-July      | 438                |                      |
|                                     | 268                | 50                 | April-Sept.     | 526                |                      |
| Williamson below Sprague River      | 184                | 45                 | April-Sept.     | 409                |                      |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR          | Usable Capacity | Usable Storage |           |                      |
|--------------------|-----------------|----------------|-----------|----------------------|
|                    |                 | This Year      | Last Year | Average <sup>c</sup> |
| Clear Lake         | 440.2           | 179.3          | 221.3     | 277.7                |
| Gerber             | 94.0            | 44.7           | 61.3      | 66.4                 |
| Upper Klamath Lake | 584.0           | 484.7          | 459.4     | 467.7                |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Lost River                       | 4                          | 39                                   | 52                   |
| Sprague River                    | 3                          | 46                                   | 46                   |
| Upper Klamath                    | 6                          | 29                                   | 19                   |
| Williamson River                 | 3                          | 11                                   | 4                    |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.





## STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT        | THIS YEAR          |                    |                 | PAST RECORD        |                      |
|--|--------------------|--------------------|-----------------|--------------------|----------------------|
|  | FORECAST           |                    | FORECAST PERIOD | THOUSAND ACRE FEET |                      |
|  | Thousand Acre Feet | Percent of Average |                 | Last Year          | Average <sup>c</sup> |
| Chewaucan near Paisley                     | 35                 | 45                 | April-July      | 73                 | 77                   |
|  | 36                 | 45                 | April-Sept.     | 77                 | 81                   |
| Cottonwood Creek nr. Lakeview              | 3.5                | 37                 | April-July      |                    | 9.5                  |
| Deep above Adel                            | 27                 | 40                 | April-July      |                    | 67                   |
|  | 28                 | 40                 | April-Sept.     |                    | 69                   |
| Drews Reservoir net Inflow                 | 7.4                | 27                 | April-July      |                    | 27                   |
| Honey Creek near Plush                     | 7.0                | 40                 | April-July      |                    | 17.7                 |
|  | 7.1                | 40                 | April-Sept.     |                    | 17.9                 |
| Silver Creek near Silver Lake              | 2.1                | 15                 | April-July      |                    | 14.1                 |
| Twentymile near Adel                       | 5.4                | 30                 | April-July      |                    | 18.1                 |
|  | 5.6                | 30                 | April-Sept.     |                    | 18.6                 |
| Bridge Cr. nr. Spahr Ranch nr. Silver Lake | 1.0                | 29                 | April-July      |                    | 3.4                  |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT       | Low Flow Value Second/Ft. | Forecast Date Stream Will Recede to Low Flow Value | Average Date of Low Flow Value |
|----------------------|---------------------------|--|--------------------------------|
| Deep Cr. above Adel  | 100                       | June 1   | June 21                        |
| Honey Cr. nr. Plush  | 100                       | April 25   | May 15                         |
|                      | 50                        | May 5  | May 30                         |
| Twentymile near Adel | 10                        | June 15  | July 3                         |

## RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

| RESERVOIR       | Usable Capacity | Usable Storage |           |                      |
|-----------------|-----------------|----------------|-----------|----------------------|
|                 |                 | This Year      | Last Year | Average <sup>c</sup> |
| Cottonwood      | 8.7             | 3.6            | 3.7       | 4.8                  |
| Drews           | 63.0            | 41.3           | 49.1      | 50.8                 |
| Thompson Valley | 19.5            | 5.0            | 7.9       | 15.4                 |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN and/or SUB-WATERSHED | Number of Courses Averaged | THIS YEAR'S SNOW WATER AS PERCENT OF |                      |
|----------------------------------|----------------------------|--------------------------------------|----------------------|
|                                  |                            | Last Year                            | Average <sup>c</sup> |
| Chewaucan River                  | 3                          | 46                                   | 46                   |
| Deep Creek                       | 4                          | 46                                   | 69                   |
| Drew Creek                       | 3                          | 19                                   | 20                   |
| Honey Creek                      | 3                          | 33                                   | 50                   |
| Silver Creek                     | 3                          | --                                   | 1                    |
| Twentymile Creek                 | 3                          | 13                                   | 33                   |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



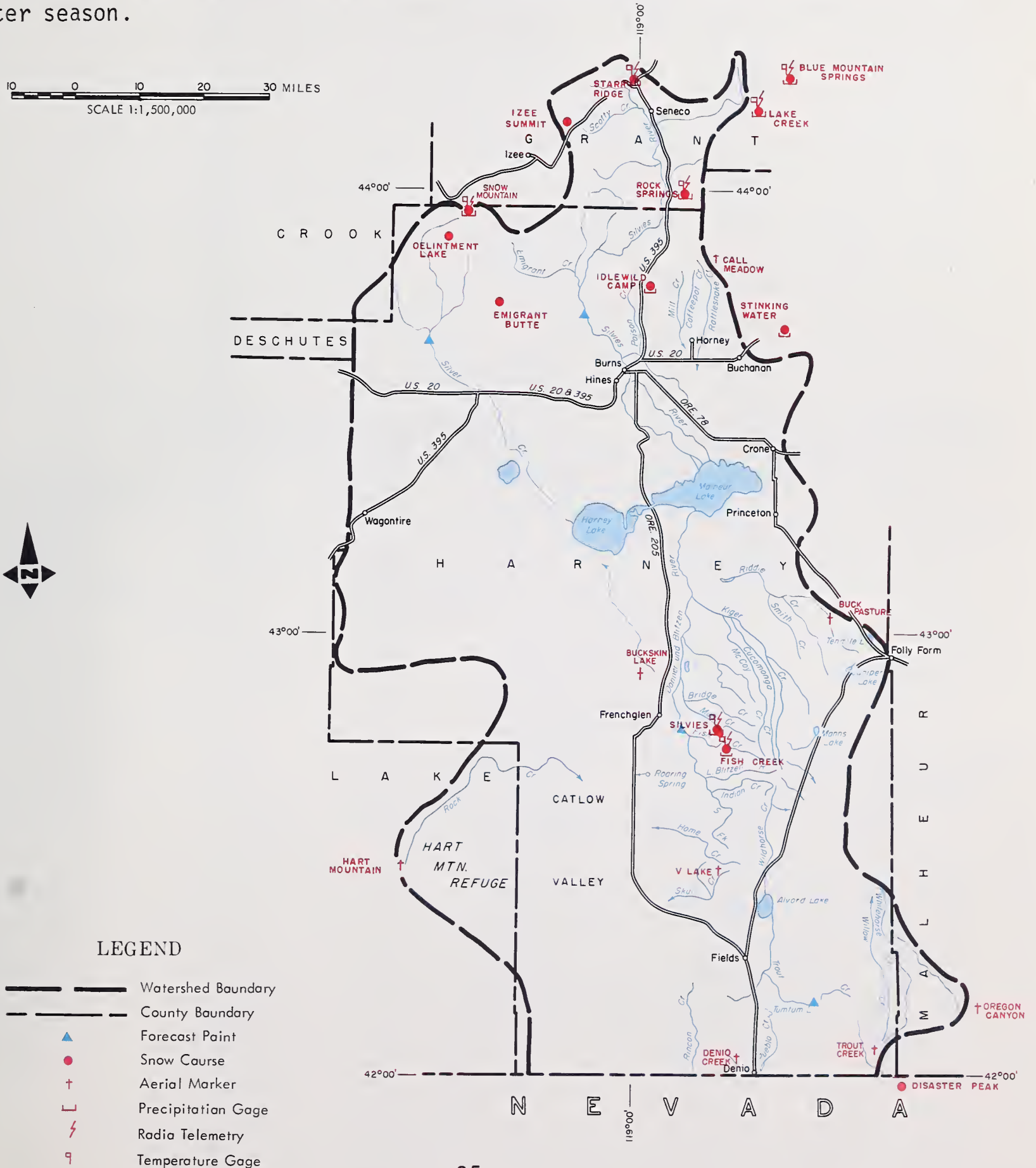
# WATER SUPPLY OUTLOOK

## HARNEY BASIN WATERSHEDS

### OREGON

#### GENERAL OUTLOOK

The Silver and Silvies Rivers are forecast to be much below normal this season (60 and 65% of normal respectively). Donner und Blitzen and Trout Creek will have the best streamflow in the state with 90 and 110% of normal respectively. The snow cover is much below average on Silver and Silvies watersheds and near normal (the best in the state) on Trout Creek and the Donner und Blitzen. The precipitation in the Harney Basin was 179% of normal in March but only 86% of normal for the winter season.



## STREAMFLOW FORECASTS

| BASIN, STREAM and/or FORECAST POINT | THIS YEAR          |                    | PAST RECORD        |                                     |
|-------------------------------------|--------------------|--------------------|--------------------|-------------------------------------|
|                                     | FORECAST           |                    | THOUSAND ACRE FEET |                                     |
|                                     | Thousand Acre Feet | Percent of Average | PERIOD             | Last Year      Average <sup>c</sup> |
| Donner und Blitzen near Frenchglen  | 46                 | 90                 | April-July         | 52                                  |
|                                     | 51                 | 90                 | April-Sept.        | 57                                  |
| Silver near Riley                   | 9.4                | 60                 | April-July         | 15.8                                |
| Silvies River near Burns            | 49                 | 65                 | April-July         | 75                                  |
|                                     | 50                 | 65                 | April-Sept.        | 77                                  |
| Trout Creek near Denio              | 9.7                | 110                | April-Sept.        | 8.8                                 |

## FORECAST DATE of LOW FLOW VALUES

| FORECAST POINT   | Low Flow Value<br>Second/Ft. | Forecast Date<br>Stream Will<br>Recede to Low<br>Flow Value | Average Date<br>of Low Flow<br>Value |
|--|------------------------------|---|--------------------------------------|
| Silvies nr. Burns  | 400                          | April 18  | May 5                                |
|  | 200                          | April 28  | May 21                               |
|  | 100                          | May 19  | June 9                               |
|  | 50                           | June 2  | June 23                              |
| Donner und Blitzen   | 200                          | June 10   | June 15                              |
|  | 100                          | July 1  | July 5                               |
| =====  |                              |   |                                      |
| Malheur Lake at Break<br>in Cole Island Dike<br>near Voltage | <u>GAGE<br/>HEIGHT</u>       | <u>SURFACE<br/>ACRES</u>                                    | <u>AVG.<br/>SURFACE<br/>ACRES</u>    |
|  | July 1                       | 39,500  | 40,000                               |
|  | Aug. 1                       | 30,800  | 33,000                               |

## SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

| RIVER BASIN<br>and/or<br>SUB-WATERSHED | Number of<br>Courses<br>Averaged | THIS YEAR'S SNOW<br>WATER AS PERCENT OF |                      |
|--|----------------------------------|---|----------------------|
|  |                                  | Last Year                               | Average <sup>c</sup> |
| Donner und Blitzen R.                  | 3                                | 73                                      | 94                   |
| Silver Creek                           | 3                                | 69                                      | 68                   |
| Silvies River                          | 4                                | 64                                      | 63                   |
| Trout Creek                            | Late Report                      |   |                      |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

APRIL 1, 1981

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE | THIS YEAR      |                  |                   | PAST RECORD            |        |
|-----------------------------------|----------------|------------------|-------------------|------------------------|--------|
|                                   | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |        |
|                                   |                |                  |                   | Last Yr.               | Ave. ° |
| OWYHEE, MALHEUR WATERSHEDS AREA 1 |                |                  |                   |                        |        |
| Antelope Ridge (Ida.)             | 3/27           | 0                | 0.0               | 4.4                    | 6.2    |
| Battle Creek (Ida.) *             | Late Report    |                  |                   | 0.0                    | 1.7    |
| Bear Creek (Nev.)                 | 3/31           | 50               | 13.9              | 23.9                   | 21.4   |
| Big Bend (Nev.)                   | 3/25           | 4                | 1.0               | 10.1                   | 8.2    |
| Blue Mountain Springs             | 4/1            | 36               | 11.8              | 14.2                   | 16.0   |
| Blue Mtn. Spgs. Plw.(T)           | N/R            |                  |                   | 20.1                   | --     |
| Blue Mtn. Spgs. Plw.(S)           | 4/1            | 34               | 10.5              | 15.0                   | 13.8b  |
| Blue Mtn. Spgs. Plw.(M)           | 4/1            | --               | 11.0              | 20.2                   | 12.2b  |
| Boulder Creek *                   | Late Report    |                  |                   | 3.0                    | --     |
| Buck Pasture *                    | Late Report    |                  |                   | 0.1                    | 1.8    |
| Buckskin, Lower (Nev.)            | 3/25           | 8                | 2.1               | 9.9                    | 7.0    |
| Buckskin, Upper (Nev.)            | 3/25           | 8                | 1.8               | 14.9                   | 9.3b   |
| Bull Basin (Ida.) *               | Late Report    |                  |                   | 0.1                    | 0.4    |
| Bully Creek *                     | Late Report    |                  |                   | 0.1                    | 0.8    |
| Call Meadows *                    | Late Report    |                  |                   | 2.2                    | 2.7    |
| Columbia Basin (Nev.)             | 3/28           | 2                | 0.2               | 5.6                    | 6.8b   |
| Disaster Peak (Nev.)              | 3/31           | 0                | 0.0               | --                     | 10.9   |
| Eldorado Pass                     | 3/30           | 0                | 0.0               | 0.0                    | 1.4    |
| Fawn Creek #2(T)(Nev.)            | 3/25           | --               | 11.9              | 10.2                   | --     |
| Fish Creek *                      | Late Report    |                  |                   | 35.6                   | 20.3b  |
| Fish Creek                        | 4/1            | --               | 24.0a             | 33.6                   | 26.1   |
| Fish Creek (Rev.)                 | 4/1            | 74               | 23.7              | 33.0                   | 26.1   |
| Fish Creek Pillow(T)              | N/R            |                  |                   | 36.8                   | --     |
| Fish Creek Pillow(S)              | 4/1            | 75               | 24.0              | --                     | --     |
| Fish Creek Pillow(M)              | 4/1            | --               | 20.8              | 35.1                   | 25.9b  |
| Flag Prairie *                    | Late Report    |                  |                   | 0.1                    | 2.6    |
| Fox Creek (Nev.)                  | 3/31           | 13               | 3.9               | 12.8                   | 9.5b   |
| Fry Canyon (Nev.)                 | 3/25           | 6                | 2.1               | 10.2                   | 6.1    |
| Gold Creek (Nev.)                 | 3/25           | 0                | 0.0               | 5.9                    | 4.9    |
| Gov't. Corrals                    | 4/1            | 46               | 14.3              | --                     | --     |
| Granite Peak (Nev.)               | 3/25           | 37               | 9.9               | --                     | 15.4b  |
| Hyde Pasture (Ida.) *             | Late Report    |                  |                   | 2.3                    | 3.2    |
| Jack Creek, Lower (Nev.)          | 3/25           | 1                | 0.1               | 5.8                    | 2.3    |
| Jack Creek, Upper (Nev.)          | 3/25           | 11               | 2.9               | 10.9                   | 9.4    |
| Jack Peak (Nev.)                  | 3/25           | 49               | 12.3              | 26.9                   | 26.0   |
| Lake Creek R.S.                   | 4/1            | 17               | 5.8               | 10.4                   | 9.2    |
| Lake Creek R.S. Plw.(T)           | N/R            |                  |                   | 14.7                   | --     |
| Lake Creek R.S. Plw.(S)           | 4/1            | 19               | 6.5               | 12.5                   | --     |
| Lake Creek R.S. Plw.(M)           | N/R            |                  |                   | 14.8                   | --     |
| Laurel Draw (Nev.)                | 3/25           | 14               | 4.5               | 9.6                    | 7.1b   |
| Logan Valley *                    | DISCONTINUED   |                  |                   |                        |        |
| Lookout Butte *                   | Late Report    |                  |                   | 0.0                    | --     |
| Louse Canyon *                    | Late Report    |                  |                   | 10.6                   | 3.4    |
| Martin Creek (Nev.)               | 3/25           | 5                | 1.5               | 11.4                   | 8.5    |
| Merritt Mountain (Nev.) *         | 3/28           | 20               | 4.5               | 9.3                    | 5.8b   |
| Midas (Nev.) *                    | 3/25           | 0                | 0.0               | 0.0                    | 2.4b   |
| Mud Flat (Ida.)                   | 3/27           | 0                | 0.0               | 8.0                    | 4.9    |
| Oregon Canyon *                   | Late Report    |                  |                   | 8.9                    | 3.8    |
| Quinn Ridge (Nev.) *              | Late Report    |                  |                   | 0.0                    | 0.9    |
| Red Canyon (Ida.) *               | Late Report    |                  |                   | 11.0                   | 5.0    |
| Rock Springs                      | 3/31           | 5                | 2.2               | 4.8                    | 4.3    |
| Rock Spgs. Plw.(T)                | 3/31           | --               | 0.6               | --                     | --     |
| Rock Spgs. Plw.(S)                | 3/31           | 1                | 0.1               | 5.0                    | --     |
| Rock Spgs. Plw.(M)                | 3/31           | --               | 0.4               | 2.8                    | --     |
| Rodeo Flat (Nev.)                 | 3/25           | 6                | 1.4               | 8.8                    | 4.9    |
| 76 Creek (Nev.) *                 | 3/31           | 20               | 6.8               | 15.4                   | 11.5b  |
| Silver City (Ida.)                | 3/27           | 18               | 6.0               | 16.1                   | 15.5   |
| Silver City (Ida.) *              | Late Report    |                  |                   | 7.1                    | 13.5b  |
| Silvies *                         | Late Report    |                  |                   | 10.4                   | 8.7b   |
| Silvies                           | 4/1            | 39               | 12.9              | 17.5                   | 12.9   |
| Silvies Pillow (T)                | 4/1            | --               | 11.8              | --                     | --     |
| Silvies Pillow (S)                | 4/1            | 37               | 11.0              | 13.0                   | --     |
| Silvies Pillow (M)                | 4/1            | --               | 11.9              | 8.3                    | 21.9b  |
| South Mountain #2 (Ida.)          | 3/27           | 24               | 8.2               | 20.4                   | 13.0   |
| South Mtn. #2 Plw.(T)             | N/R            |                  |                   | 24.8                   | --     |
| Stag Mountain (Nev.) *            | 3/28           | 4                | 1.0               | 10.2                   | 4.8b   |
| Stinking Water                    | 4/1            | 0                | 0.0               | 0.0                    | 0.8b   |
| Succor Creek (Ida.) *             | Late Report    |                  |                   | 9.2                    | 5.0    |
| Taylor Canyon (Nev.)              | 3/25           | 0                | 0.0               | 3.7                    | 2.7    |
| Toe Jam (Nev.) *                  | 3/28           | 24               | 5.0               | 11.9                   | 8.3b   |
| Tremewan Ranch (Nev.) *           | 3/25           | 0                | 0.0               | 0.0                    | 0.3    |
| Trout Creek *                     | Late Report    |                  |                   | 16.2                   | 7.6    |
| "V" Lake *                        | Late Report    |                  |                   | 10.4                   | 6.5    |
| Vaught Ranch (Ida.) *             | Late Report    |                  |                   | 0.0                    | 1.7b   |
| War Eagle (Ida.) *                | Late Report    |                  |                   | 27.5                   | 25.1b  |

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE                           | THIS YEAR      |                  |                   | PAST RECORD            |        |
|---|----------------|------------------|-------------------|------------------------|--------|
|   | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |        |
|   |                |                  |                   | Last Yr.               | Ave. ° |
| BURNT, POWDER, PINE, GRANDE RONDE, INNAHA WATERSHEDS AREA 2 |                |                  |                   |                        |        |
| Aneroid Lake #2   | 4/1            | 85               | 24.4              | 31.8                   | 34.0   |
| Aneroid Lake #2 Plw.(T)                                     | N/R            |                  |                   |                        |        |
| Aneroid Lake #2 Plw.(S)                                     | 4/1            | 92               | 23.2              | --                     | --     |
| Aneroid Lake #2 Plw.(M)                                     | N/R            |                  |                   | 33.1                   | --     |
| Anthony Lake  | 3/27           | 60               | 17.1              | 26.4                   | 27.9   |
| Bald Mountain (OR) *  | 3/28           | 51               | 16.8              | 26.7                   | 24.0   |
| Beaver Reservoir (Rev.)                                     | 3/31           | 27               | 6.4               | 11.6                   | 12.7   |
| Beaver Res. Pillow (T)                                      | N/R            |                  |                   |                        |        |
| Beaver Res. Pillow (S)                                      | 3/31           | 17               | 1.8               | 9.0                    | --     |
| Beaver Res. Pillow (M)                                      | N/R            |                  |                   |                        |        |
| Big Sheep *   | 3/28           | 61               | 18.3              | 30.0                   | 25.2   |
| Blue Mtn. Summit  | 3/28           | 20               | 5.7               | 7.7                    | 8.0    |
| Bourne  | 3/28           | 20               | 5.2               | 14.6                   | 14.5   |
| Bourne Pillow (T)   | N/R            |                  |                   | 19.4                   | --     |
| Bourne Pillow (S)   | 3/28           | 33               | 7.8               | 17.6                   | --     |
| Bourne Pillow (M)   | N/R            |                  |                   | 18.7                   | --     |
| County Line   | 3/27           | --               | 1.4a              | 3.6                    | 4.3    |
| County Line (Rev.)  | 3/27           | 7                | 1.0               | 2.0                    | 3.4    |
| County Line Pillow (T)                                      | 3/27           | --               | 0.8               | --                     | --     |
| County Line Pillow (S)                                      | 3/27           | 5                | 0.8               | 1.6                    | --     |
| County Line Pillow (M)                                      | 3/27           | --               | 0.5               | 1.1                    | --     |
| Dooley Mountain   | 3/26           | 16               | 4.9               | 9.0                    | 7.9    |
| Eilertson Meadows   | 3/28           | 4                | 0.6               | 12.2                   | 11.6   |
| Eilertson Mdws. Plw.(T)                                     | 3/27           | --               | 0.2               | --                     | --     |
| Eilertson Mdws. Plw.(S)                                     | 3/28           | 3                | 0.3               | 11.1                   | --     |
| Eilertson Mdws. Plw.(M)                                     | 3/28           | --               | 0.3               | 6.9                    | --     |
| Eldorado Pass   | 3/30           | 0                | 0.0               | 0.0                    | 1.4    |
| Gold Center   | 3/28           | 20               | 5.7               | 11.8                   | 12.6   |
| Gold Center Pillow (T)                                      | 3/28           | --               | 1.4               | --                     | --     |
| Gold Center Pillow (S)                                      | 3/28           | 6                | 1.7               | 6.8                    | --     |
| Gold Center Pillow (M)                                      | 3/28           | --               | 1.5               | 7.3                    | --     |
| Goodrich Lake   | 3/28           | 43               | 12.4              | 37.7                   | 36.8   |
| Little Alps   | 3/27           | 26               | 5.1               | 13.0                   | 14.8   |
| Little Antone   | DISCONTINUED   |                  |                   |                        |        |
| Little Antone (Alt.)  | 3/27           | 10               | 4.1               | 5.0                    | --     |
| Lucky Strike  | 3/27           | 30               | 7.0               | 9.8                    | 12.7   |
| Lucky Strike Pillow(T)                                      | N/R            |                  |                   | 6.5                    | --     |
| Lucky Strike Pillow(S)                                      | 3/27           | 14               | 2.6               | 4.5                    | --     |
| Lucky Strike Pillow(M)                                      | 3/27           | --               | 1.4               | --                     | --     |
| Meacham   | DISCONTINUED   |                  |                   |                        |        |
| Mirror Lake *   | 3/28           | 134              | 40.2              | 59.1                   | 74.6   |
| Moss Spring   | 3/28           | 38               | 11.4              | 22.4                   | 24.8   |
| Moss Spring Pillow (T)                                      | 3/28           | --               | 11.1              | --                     | --     |
| Moss Spring Pillow (S)                                      | N/R            |                  |                   | 24.8                   | --     |
| Moss Spring Pillow (M)                                      | N/R            |                  |                   | 23.2                   | --     |
| Mt. Howard Pillow (T)                                       | N/R            |                  |                   |                        |        |
| Mt. Howard Pillow (S)                                       | 3/28           | 44               | 14.5              | 18.5                   | --     |
| Mt. Howard Pillow (M)                                       | N/R            |                  |                   | 13.5                   | --     |
| Schneider Meadow  | 3/28           | 57               | 22.8              | 29.4                   | 30.4   |
| Schneider Meadow Plw.(T)                                    | N/R            |                  |                   |                        |        |
| Schneider Meadow Plw.(S)                                    | 3/28           | 63               | 23.0              | 29.0                   | --     |
| Schneider Meadow Plw.(M)                                    | N/R            |                  |                   |                        |        |
| Schoolmarm  | DISCONTINUED   |                  |                   |                        |        |
| Standley *  | 3/28           | 67               | 20.1              | 32.3                   | 33.5   |
| Taylor Green  | 3/28           | 32               | 11.0              | 15.8                   | 16.8   |
| Taylor Green Pillow (T)                                     | 3/28           | --               | 17.0              | 21.6                   | --     |
| Taylor Green Pillow (S)                                     | 3/28           | 39               | 13.8              | 23.0                   | --     |
| Taylor Green Pillow (M)                                     | 3/28           | --               | 17.5              | 20.6                   | --     |
| Tipton  | 3/28           | 16               | 5.8               | 7.8                    | 9.9    |
| Tipton Pillow (T)   | 3/28           | --               | 9.2               | 7.5                    | --     |
| Tipton Pillow (S)   | 3/28           | 30               | 7.9               | 10.3                   | 14.3b  |
| Tipton Pillow (M)   | 3/28           | --               | 8.1               | 6.9                    | --     |
| Tollgate  | DISCONTINUED   |                  |                   |                        |        |
| TV Ridge *  | 3/28           | 38               | 11.4              | 25.7                   | 23.3b  |
| West Eagle Meadows  | 3/28           | 56               | 19.6              | 23.8                   | --     |
| Wolf Creek Pillow (T)                                       | N/R            |                  |                   | 13.6                   | --     |
| Wolf Creek Pillow (S)                                       | 3/28           | 44               | 14.5              | 16.3                   | --     |
| Wolf Creek Pillow (M)                                       | 3/28           | --               | 12.9              | 12.0                   | --     |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

APRIL 1, 1981

## SNOW

| SNOW  | THIS YEAR      |                  |                   | PAST RECORD            |        |
|---|----------------|------------------|-------------------|------------------------|--------|
| DRAINAGE BASIN and/or SNOW COURSE                                     | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |        |
|   |                |                  |                   | Last Yr.               | Ave. C |
| UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS AREA 3 |                |                  |                   |                        |        |
| Arbuckle Mountain   | 3/27           | 11               | 1.8               | 6.9                    | 10.3   |
| Arbuckle Mtn. Plw.(T)   | N/R            |                  |                   |                        |        |
| Arbuckle Mtn. Plw.(S)   | 3/27           | 46               | 12.6              | 17.6                   | --     |
| Arbuckle Mtn. Plw.(M)   | 3/27           | --               | 10.6              | 25.0                   | 24.2   |
| Blue Mountain Camp  | 3/27           | 8                | 1.8               | 6.4                    | 15.2   |
| Bowman Springs Plw.(T)  | N/R            |                  |                   | 13.1                   | --     |
| Bowman Springs Plw.(S)  | 3/27           | 12               | 2.9               | 8.0                    | --     |
| Bowman Springs Plw.(M)  | 3/27           | --               | 2.4               | 12.9                   | --     |
| Butte Creek Summit  | N/R            |                  |                   |                        |        |
| Emigrant Springs  | 3/27           | 3                | 0.5               | 2.7                    | 3.9    |
| Emigrant Springs Plw.(T)  | N/R            |                  |                   |                        |        |
| Emigrant Springs Plw.(S)  | 3/27           | 3                | 0.3               | 2.2                    | --     |
| Emigrant Springs Plw.(M)  | 3/27           | --               | 0.8               | 2.8                    | --     |
| High Ridge Pillow (T)   | 3/31           | --               | 14.7              | 26.6                   | --     |
| High Ridge Pillow (S)   | 3/31           | 60               | 17.2              | 25.6                   | 32.3   |
| High Ridge Pillow (M)   | 3/31           | --               | 15.1              | 25.8                   | --     |
| Lucky Strike  | 3/27           | 30               | 7.0               | 9.8                    | 12.7   |
| Lucky Strike Plw.(T)  | N/R            |                  |                   | 6.5                    | --     |
| Lucky Strike Plw.(S)  | 3/27           | 14               | 2.6               | 4.5                    | --     |
| Lucky Strike Plw.(M)  | 3/27           | --               | 1.4               | --                     | --     |
| Madison Butte Pillow(T)   | N/R            |                  |                   |                        |        |
| Madison Butte Pillow(S)   | 3/27           | 8                | 1.6               | 2.0                    | --     |
| Madison Butte Pillow(M)   | 3/27           | --               | 1.2               | 1.2                    | --     |
| Meacham   | DISCONTINUED   |                  |                   |                        |        |
| Tollgate  | DISCONTINUED   |                  |                   |                        |        |
| UPPER JOHN DAY WATERSHEDS AREA 4                                      |                |                  |                   |                        |        |
| Anthony Lake  | 3/27           | 60               | 17.1              | 26.4                   | 27.9   |
| Arbuckle Mountain   | 3/27           | 11               | 1.8               | 6.9                    | 10.3   |
| Arbuckle Mtn. Plw.(T)   | N/R            |                  |                   |                        |        |
| Arbuckle Mtn. Plw.(S)   | 3/27           | 46               | 12.6              | 17.6                   | --     |
| Arbuckle Mtn. Plw.(M)   | 3/27           | --               | 10.6              | 25.0                   | 24.2b  |
| Blue Mountain Springs   | 4/1            | 36               | 11.8              | 14.2                   | 16.0   |
| Blue Mtn. Spgs. Plw.(T)   | N/R            |                  |                   | 20.1                   | --     |
| Blue Mtn. Spgs. Plw.(S)   | 4/1            | 34               | 10.5              | 15.0                   | 13.8b  |
| Blue Mtn. Spgs. Plw.(M)   | 4/1            | --               | 11.0              | 20.2                   | 12.2b  |
| Blue Mountain Summit  | 3/28           | 20               | 5.7               | 7.7                    | 8.0    |
| Butte Creek Summit  | N/R            |                  |                   |                        |        |
| Derr  | 3/30           | 7                | 2.7               | 7.9                    | 8.9    |
| Derr Pillow (T)   | N/R            |                  |                   |                        |        |
| Derr Pillow (S)   | 3/30           | 30               | 13.0              | 15.0                   | --     |
| Derr Pillow (M)   | 3/30           | --               | 10.2              | 18.7                   | --     |
| Gold Center   | 3/28           | 20               | 5.7               | 11.8                   | 12.6   |
| Gold Center Plw. (T)  | 3/28           | --               | 1.4               | --                     | --     |
| Gold Center Plw. (S)  | 3/28           | 6                | 1.7               | 6.8                    | --     |
| Gold Center Plw. (M)  | 3/28           | --               | 1.5               | 7.3                    | --     |
| Izee Summit   | 3/31           | 11               | 4.8               | 8.0                    | 6.6    |
| Lucky Strike  | 3/27           | 30               | 7.0               | 9.8                    | 12.7   |
| Lucky Strike Plw.(T)  | N/R            |                  |                   | 6.5                    | --     |
| Lucky Strike Plw. (S)   | 3/27           | 14               | 2.6               | 4.5                    | --     |
| Lucky Strike Plw.(M)  | 3/27           | --               | 1.4               | --                     | --     |
| Marks Creek   | 4/1            | 0                | 0.0               | 0.0                    | 1.8    |
| Ochoco Meadows  | 3/31           | 11               | 4.1               | 9.2                    | 8.2    |
| Ochoco Mdws. Plw.(T)  | N/R            |                  |                   |                        |        |
| Ochoco Mdws. Plw.(S)  | 3/31           | 12               | 4.8               | 11.8                   | --     |
| Ochoco Mdws. Plw.(M)  | N/R            |                  |                   | 10.3                   | --     |
| Olive Lake *  | DISCONTINUED   |                  |                   |                        |        |
| Schoolmarm  | DISCONTINUED   |                  |                   |                        |        |
| Snow Mountain   | 3/30           | 27               | 9.0               | 12.0                   | 12.1   |
| Snow Mtn. Plw. (T)  | 3/30           | --               | 6.8               | 13.4                   | --     |
| Snow Mtn. Plw. (S)  | 3/30           | 29               | 8.7               | 9.8                    | 11.0b  |
| Snow Mtn. Plw.(M)   | 3/30           | --               | 5.6               | 11.1                   | --     |
| Starr Ridge   | 3/31           | 3                | 1.2               | 4.6                    | 4.6    |
| Starr Ridge Plw. (T)  | 3/31           | --               | 0.5               | --                     | --     |
| Starr Ridge Plw. (S)  | 3/31           | 1                | 0.1               | 5.0                    | --     |
| Starr Ridge Plw. (M)  | 3/31           | --               | 0.4               | 3.2                    | --     |
| Tipton  | 3/28           | 16               | 5.8               | 7.8                    | 9.9    |
| Tipton Pillow (T)   | 3/28           | --               | 9.2               | 7.5                    | --     |
| Tipton Pillow (S)   | 3/28           | 30               | 7.9               | 10.3                   | 14.3b  |
| Tipton Pillow (M)   | 3/28           | --               | 8.1               | 6.9                    | --     |

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE          | THIS YEAR      |                  |                   | PAST RECORD            |                   |
|--|----------------|------------------|-------------------|------------------------|-------------------|
|  | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |                   |
|  |                |                  |                   | Last Yr.               | Ave. <sup>c</sup> |
| UPPER DESCHUTES, CROOKED WATERSHEDS AREA 5 |                |                  |                   |                        |                   |
| Bald Peter                                 | 3/26           | 31               | 11.6              | 28.6                   | 30.1 <sup>b</sup> |
| Caldwell Ranch                             | 3/31           | 0                | 0.0               | 1.2                    | 8.5 <sup>b</sup>  |
| Cascade Summit                             | 3/26           | 22               | 7.3               | 13.1                   | 30.1              |
| Cascade Summit Plw.(T)                     | N/R            |                  |                   |                        |                   |
| Cascade Summit Plw.(S)                     | 3/26           | 34               | 11.0              | 21.0                   | --                |
| Cascade Summit Plw.(M)                     | 3/26           | --               | 11.2              | 17.0                   | --                |
| Chemult Alternate                          | 3/31           | 0                | 0.0               | 0.7                    | 9.0               |
| Chemult Alt. Plw. (T)                      | N/R            |                  |                   |                        |                   |
| Chemult Alt. Plw. (S)                      | 3/31           | 0                | 0.0               | 0.0                    | --                |
| Chemult Alt. Plw. (M)                      | 3/31           | --               | 0.0               | 0.0                    | --                |
| Derr                                       | 3/30           | 7                | 2.7               | 7.9                    | 8.9               |
| Derr Pillow (T)                            | N/R            |                  |                   |                        |                   |
| Derr Pillow (S)                            | 3/30           | 30               | 13.0              | 15.0                   | --                |
| Derr Pillow (M)                            | 3/30           | --               | 10.2              | 18.7                   | --                |
| Hogg Pass                                  | 3/27           | 28               | 9.6               | 22.3                   | 42.3              |
| Hogg Pass Pillow (T)                       | 3/27           | --               | 11.5              | 25.4                   | --                |
| Hogg Pass Pillow (S)                       | 3/27           | 32               | 11.9              | 26.2                   | --                |
| Hogg Pass Pillow (M)                       | 3/27           | --               | 11.7              | 26.2                   | --                |
| Hungry Flat                                | 3/29           | 0                | 0.0               | 0.1                    | 3.4               |
| Irish-Taylor Pillow(T)                     | N/R            |                  |                   |                        |                   |
| Irish-Taylor Pillow(S)                     | 3/31           | 59               | 17.5              | 29.4                   | 39.2              |
| Irish-Taylor Pillow(M)                     | 3/31           | --               | 16.3              | 29.7                   | --                |
| Lionshead *                                | 4/2            | 15               | 2.2               | 14.8                   | --                |
| Marks Creek                                | 4/1            | 0                | 0.0               | 0.0                    | 1.8               |
| New Crescent Lake                          | 3/30           | 0                | 0.0               | 3.5                    | 13.5              |
| New Crescent Lake Plw.(T)                  | N/R            |                  |                   |                        |                   |
| New Crescent Lake Plw.(S)                  | 3/30           | 1                | 0.1               | 2.4                    | --                |
| New Crescent Lake Plw.(M)                  | 3/30           | --               | 0.0               | 0.3                    | --                |
| New Dutchman Flat #2                       | 3/29           | 68               | 25.6              | 46.8                   | 52.0              |
| Ochoco Meadows                             | 3/31           | 11               | 4.1               | 9.2                    | 8.2               |
| Ochoco Meadows Plw.(T)                     | N/R            |                  |                   |                        |                   |
| Ochoco Meadows Plw.(S)                     | 3/31           | 12               | 4.8               | 11.8                   | --                |
| Ochoco Meadows Plw.(M)                     | N/R            |                  |                   | 10.3                   | --                |
| Racing Creek                               | 3/26           | 8                | 2.8               | 10.2                   | 16.8 <sup>b</sup> |
| Snow Mountain                              | 3/30           | 27               | 9.0               | 12.0                   | 12.1              |
| Snow Mountain Plw. (T)                     | 3/30           | --               | 6.8               | 13.4                   | --                |
| Snow Mountain Plw. (S)                     | 3/30           | 29               | 8.7               | 9.8                    | 11.0 <sup>b</sup> |
| Snow Mountain Plw. (M)                     | 3/30           | --               | 5.6               | 11.1                   | --                |
| Summit Lake Pillow (T)                     | N/R            |                  |                   |                        |                   |
| Summit Lake Pillow (S)                     | 3/30           | 60               | 18.8              | 28.6                   | 39.9              |
| Summit Lake Pillow (M)                     | 3/30           | --               | 16.4              | 28.8                   | --                |
| Tamarack                                   | 3/30           | 0                | 0.0               | 0.8                    | 3.5               |
| Tangent                                    | 3/29           | 14               | 4.8               | 17.2                   | 22.4              |
| Three Creek Butte                          | 3/27           | 0                | 0.0               | 2.0                    | 8.6               |
| Three Creek Meadow                         | 3/27           | 3                | 1.3               | 6.6                    | 17.8              |
| Three Creek Mdw. Plw.(T)                   | 3/27           | --               | 5.4               | --                     | --                |
| Three Creek Mdw. Plw.(S)                   | 3/27           | 11               | 4.4               | 19.8                   | 18.2 <sup>b</sup> |
| Three Creek Mdw. Plw.(M)                   | 3/27           | --               | 4.3               | 10.7                   | --                |
| Waldo Lake                                 | DISCONTINUED   |                  |                   |                        |                   |
| Whitewater Meadow *                        | 4/2            | 14               | 2.1               | 0.0                    | --                |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

APRIL 1, 1981

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE                    | THIS YEAR      |                  |                   | PAST RECORD            |                   |
|--|----------------|------------------|-------------------|------------------------|-------------------|
|  | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |                   |
|  |                |                  |                   | Last Yr.               | Ave. <sup>c</sup> |
| HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS AREA 6 |                |                  |                   |                        |                   |
| Brooks Meadow  | 3/30           | 0                | 0.0               | 11.0                   | 10.7              |
| Clear Lake   | 3/30           | 2                | 0.4               | 6.0                    | 10.2              |
| Clear Lake Pillow (T)                                | N/R            |                  |                   |                        |                   |
| Clear Lake Pillow (S)                                | 3/30           | 4                | 0.4               | 11.3                   | --                |
| Clear Lake Pillow (M)                                | 3/30           | --               | 0.2               | --                     | --                |
| Clear Lake Expt.                                     | 3/30           | 3                | 0.6               | 11.3                   | 16.3              |
| Greenpoint   | 3/26           | 0                | 0.0               | 17.8                   | 16.5              |
| Greenpoint Pillow (T)                                | 3/26           | --               | 0.0               | 23.4                   | --                |
| Greenpoint Pillow (S)                                | 3/26           | 0                | 0.0               | 19.0                   | --                |
| Greenpoint Pillow (M)                                | N/R            |                  |                   | 22.4                   | --                |
| Mt. Hood Test Site (T)                               | 3/26           | --               | 19.6              | --                     | 67.2 <sup>b</sup> |
| Mt. Hood Test Site (S)                               | 3/26           | 45               | 16.4              | 64.0                   | 55.3 <sup>b</sup> |
| Mt. Hood Test Site (M)                               | 3/26           | --               | 17.0              | 66.2                   | --                |
| Mud Ridge Pillow (T)                                 | 3/30           | --               | 1.3               | 25.0                   | --                |
| Mud Ridge Pillow (S)                                 | 3/30           | 10               | 1.1               | 19.9                   | 31.9              |
| Mud Ridge Pillow (M)                                 | N/R            |                  |                   | 27.1                   | --                |
| Red Hill   | 3/29           | 12               | 4.6               | 38.3                   | 43.3              |
| Red Hill Pillow (T)                                  | 3/29           | --               | 4.3               | 48.6                   | --                |
| Red Hill Pillow (S)                                  | 3/29           | 14               | 4.1               | 40.8                   | --                |
| Red Hill Pillow (M)                                  | 3/29           | --               | 3.9               | 47.8                   | --                |
| Still Creek  | 3/30           | 7                | 1.0               | 20.2                   | 25.4              |
| Switchback   | 3/26           | 0                | 0.0               | 17.4                   | 16.4              |
| Tilly Jane   | 3/30           | 35               | 10.4              | 39.9                   | 41.7              |
| LOWER COLUMBIA WATERSHED AREA 7                      |                |                  |                   |                        |                   |
| Blazed Alder Pillow (T)                              | N/R            |                  |                   |                        |                   |
| Blazed Alder Pillow (S)                              | N/R            |                  |                   |                        |                   |
| Blazed Alder Pillow (M)                              | N/R            |                  |                   |                        |                   |
| Mt. Hood Test Site (T)                               | 3/26           | --               | 19.6              | --                     | 67.2 <sup>b</sup> |
| Mt. Hood Test Site (S)                               | 3/26           | 45               | 16.4              | 64.0                   | 55.3 <sup>b</sup> |
| Mt. Hood Test Site (M)                               | 3/26           | --               | 17.0              | 66.2                   | --                |
| Mud Ridge Pillow (T)                                 | 3/30           | --               | 1.3               | 25.0                   | --                |
| Mud Ridge Pillow (S)                                 | 3/30           | 10               | 1.1               | 19.9                   | 31.9              |
| Mud Ridge Pillow (M)                                 | N/R            |                  |                   | 27.1                   | --                |
| North Fork Res. (T)                                  | 4/1            | --               | 1.5               | 14.0                   | --                |
| North Fork Res. (S)                                  | N/R            |                  |                   |                        |                   |
| North Fork Res. (M)                                  | N/R            |                  |                   |                        |                   |
| Still Creek  | 3/30           | 7                | 1.0               | 20.2                   | 25.4              |
| WILLAMETTE WATERSHEDS AREA 8                         |                |                  |                   |                        |                   |
| Cascade Summit                                       | 3/26           | 22               | 7.3               | 13.1                   | 30.1              |
| Cascade Summit Plw.(T)                               | N/R            |                  |                   |                        |                   |
| Cascade Summit Plw.(S)                               | 3/26           | 34               | 11.0              | 21.0                   | --                |
| Cascade Summit Plw.(M)                               | 3/26           | --               | 11.2              | 17.0                   | --                |
| Champion   | 3/31           | 18               | 3.6               | 10.2                   | 32.3              |
| Clackamas Lake                                       | 3/30           | 0                | 0.0               | 7.6                    | 12.6              |
| Clackamas Lake Plw.(T)                               | N/R            |                  |                   |                        |                   |
| Clackamas Lake Plw.(S)                               | 3/30           | 0                | 0.0               | 13.0                   | --                |
| Clackamas Lake Plw.(M)                               | 3/30           | --               | 0.0               | --                     | --                |
| Clear Lake   | 3/30           | 2                | 0.4               | 6.0                    | 10.2              |
| Clear Lake Plw.(T)                                   | N/R            |                  |                   |                        |                   |
| Clear Lake Plw.(S)                                   | 3/30           | 4                | 0.4               | 11.3                   | --                |
| Clear Lake Plw.(M)                                   | 3/30           | --               | 0.2               | --                     | --                |
| Clear Lake Expt.                                     | 3/30           | 3                | 0.6               | 11.3                   | 16.3              |

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE | THIS YEAR      |                  |                   | PAST RECORD            |                   |
|-----------------------------------|----------------|------------------|-------------------|------------------------|-------------------|
|                                   | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |                   |
|                                   |                |                  |                   | Last Yr.               | Ave. <sup>c</sup> |
| WILLAMETTE WATERSHEDS (CONT.)     |                |                  |                   |                        |                   |
| Daly Lake Plw. (T)                | 4/1            | --               | 2.4               | --                     | --                |
| Daly Lake Plw. (S)                | 4/1            | 11               | 2.2               | 7.0                    | --                |
| Daly Lake Plw. (M)                | 4/1            | --               | 1.8               | 7.8                    | --                |
| Dead Horse Grade                  | 3/29           | 1                | 0.1               | 6.1                    | 18.8              |
| Golden Curry Creek                | 3/31           | TR               | 0.1               | 1.0                    | 4.2               |
| Hogg Pass                         | 3/27           | 28               | 9.6               | 22.3                   | 42.3              |
| Hogg Pass Pillow (T)              | 3/27           | --               | 11.5              | 25.4                   | --                |
| Hogg Pass Pillow (S)              | 3/27           | 32               | 11.9              | 26.2                   | --                |
| Hogg Pass Pillow (M)              | 3/27           | --               | 11.7              | 26.2                   | --                |
| Holland Meadows Plw.(T)           | N/R            |                  |                   |                        |                   |
| Holland Meadows Plw.(S)           | 4/2            | 21               | 5.4               | 10.7                   | --                |
| Holland Meadows Plw.(M)           | 4/2            | --               | 5.4               | 7.9                    | --                |
| Jump Off Joe Pillow (T)           | 3/29           | --               | 0.4               | 5.6                    | --                |
| Jump Off Joe Pillow (S)           | 3/27           | 0                | 0.0               | 6.2                    | --                |
| Jump Off Joe Pillow (M)           | N/R            |                  |                   | 5.2                    | --                |
| Layng Creek                       | 3/31           | 0                | 0.0               | 0.0                    | --                |
| Little Meadows Plw.(T)            | 4/1            | --               | 3.1               | --                     | --                |
| Little Meadows Plw.(S)            | 4/1            | 16               | 3.0               | 10.0                   | --                |
| Little Meadows Plw.(M)            | 4/1            | --               | 2.8               | 8.6                    | --                |
| Lost Creek Ranch                  | 3/29           | 0                | 0.0               | 0.0                    | 2.2               |
| Lund Park                         | 3/31           | 0                | 0.0               | 0.0                    | --                |
| Marion Forks                      | 3/27           | 0                | 0.0               | 2.8                    | 13.0              |
| Marion Forks Pillow (T)           | 3/27           | --               | 0.0               | --                     | --                |
| Marion Forks Pillow (S)           | 3/27           | 0                | 0.0               | 2.8                    | --                |
| Marion Forks Pillow (M)           | 3/27           | --               | 0.0               | 2.9                    | --                |
| Marys Peak                        | 4/1            | 10               | 1.4               | 7.1                    | 12.8 <sup>b</sup> |
| McCredie Springs                  | 3/26           | 0                | 0.0               | 0.0                    | --                |
| McKenzie                          | 3/29           | 37               | 13.4              | 28.9                   | 45.9              |
| McKenzie Pillow (T)               | N/R            |                  |                   |                        |                   |
| McKenzie Pillow (S)               | 3/29           | 37               | 13.3              | 26.8                   | --                |
| McKenzie Pillow (M)               | 3/29           | --               | 13.8              | 24.9                   | --                |
| Mt. Hood Test Site (T)            | 3/26           | --               | 19.6              | --                     | 67.2 <sup>b</sup> |
| Mt. Hood Test Site (S)            | 3/26           | 45               | 16.4              | 64.0                   | 55.3 <sup>b</sup> |
| Mt. Hood Test Site (M)            | 3/26           | --               | 17.0              | 66.2                   | --                |
| Peavine Ridge Pillow (T)          | N/R            |                  |                   | --                     | 17.3              |
| Peavine Ridge Pillow (S)          | N/R            |                  |                   |                        |                   |
| Peavine Ridge Pillow (M)          | N/R            |                  |                   |                        |                   |
| Railroad Overpass                 | 3/26           | 0                | 0.0               | 0.0                    | 0.6               |
| Railroad Overpass Plw.(T)         | N/R            |                  |                   |                        |                   |
| Railroad Overpass Plw.(S)         | 3/26           | 0                | 0.0               | 0.0                    | --                |
| Railroad Overpass Plw.(M)         | 3/26           | --               | 0.0               | 0.0                    | --                |
| Roaring River Plw. (T)            | 3/31           | --               | 5.6               | --                     | --                |
| Roaring River Plw. (S)            | 3/31           | 24               | 5.8               | 17.4                   | --                |
| Roaring River Plw. (M)            | 3/31           | --               | 5.9               | 20.8                   | --                |
| Saddle Mtn. Pillow (T)            | 4/1            | --               | 0.5               | 6.2                    | 11.5 <sup>b</sup> |
| Salt Creek Falls                  | 3/26           | 0                | 0.0               | 4.8                    | 16.4              |
| Salt Creek Falls Plw.(T)          | 3/26           | --               | 2.5               | --                     | --                |
| Salt Creek Falls Plw.(S)          | 3/26           | 7                | 1.9               | 5.8                    | --                |
| Salt Creek Falls Plw.(M)          | 3/26           | --               | 2.0               | 5.1                    | --                |
| Santiam Junction                  | 3/27           | 0                | 0.0               | 5.9                    | 22.6              |
| Santiam Junction Plw.(T)          | N/R            |                  |                   | 7.9                    | --                |
| Santiam Junction Plw.(S)          | 3/27           | 0                | 0.0               | 6.6                    | --                |
| Santiam Junction Plw.(M)          | 3/27           | --               | 0.0               | 7.9                    | --                |
| Seine Creek Pillow (T)            | 4/1            | --               | 0.0               | --                     | --                |
| Still Creek                       | 3/30           | 7                | 1.0               | 20.2                   | 25.4              |
| Summit Lake Pillow (T)            | N/R            |                  |                   |                        |                   |
| Summit Lake Pillow (S)            | 3/30           | 60               | 18.8              | 28.6                   | 39.9              |
| Summit Lake Pillow (M)            | 3/30           | --               | 16.4              | 28.8                   | --                |
| Timothy Lake                      | N/R            |                  |                   | 8.3                    | 15.6 <sup>b</sup> |
| Waldo Lake                        | DISCONTINUED   |                  |                   |                        |                   |
| Weaver Creek                      | 3/31           | 0                | 0.0               | 0.0                    | 0.3               |
| White Branch Slide                | 3/29           | 0                | 0.0               | 2.0                    | 8.7               |
| Whitewater Bridge                 | 3/27           | 0                | 0.0               | 0.0                    | 2.3               |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

APRIL 1, 1981

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE  | THIS YEAR      |                  |                   | PAST RECORD            |                   |
|------------------------------------|----------------|------------------|-------------------|------------------------|-------------------|
|                                    | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |                   |
|                                    |                |                  |                   | Last Yr.               | Ave. °            |
| ROGUE, UMPQUA WATERSHEDS<br>AREA 9 |                |                  |                   |                        |                   |
| Althouse                           | 3/26           | 3                | 1.0               | 5.7                    | 8.9               |
| Annie Spring                       | 4/1            | 69               | 23.8              | 38.3                   | 46.7              |
| Beaver Dam Creek                   | 3/31           | 0                | 0.0               | 6.5                    | 13.9 <sup>b</sup> |
| Bigelow Camp Plw.(T)               | N/R            |                  |                   |                        |                   |
| Bigelow Camp Plw.(S)               | 3/24           | 0                | 0.0               | 6.4                    | --                |
| Bigelow Camp Plw.(M)               | N/R            |                  |                   | 3.0                    | --                |
| Big Red Mountain                   | 3/27           | 44               | 14.9              | 25.3                   | 30.3              |
| Big Red Mountain Plw.(T)           | N/R            |                  |                   |                        |                   |
| Big Red Mountain Plw.(S)           | 3/27           | 38               | 12.0              | 20.0                   | --                |
| Big Red Mountain Plw.(M)           | 3/27           | --               | 12.7              | 22.6                   | --                |
| Billie Creek Divide                | 3/27           | 6                | 2.3               | 14.6                   | 21.8              |
| Billie Cr. Div. Plw.(T)            | 3/27           | --               | 4.5               | 15.8                   | --                |
| Billie Cr. Div. Plw.(S)            | 3/27           | 13               | 5.1               | 15.0                   | --                |
| Billie Cr. Div. Plw.(M)            | 3/27           | --               | 4.4               | 14.6                   | --                |
| Caliban                            | 3/27           | 50               | 16.3              | 30.0                   | 35.7 <sup>b</sup> |
| Caliban (Alternate)                | 3/27           | 49               | 16.4              | 30.4                   | --                |
| Champion                           | 3/31           | 18               | 3.6               | 10.2                   | 32.3              |
| Cold Springs Camp                  | 3/30           | 51               | 18.0              | 26.9                   | 35.6              |
| Cold Spgs. Camp Plw.(T)            | N/R            |                  |                   | --                     | 31.4 <sup>b</sup> |
| Cold Spgs. Camp Plw.(S)            | 3/30           | 25               | 7.0               | 18.8                   | --                |
| Cold Spgs. Camp Plw.(M)            | 3/30           | --               | 6.8               | 20.6                   | --                |
| Deadwood Junction                  | 3/31           | 0                | 0.0               | 2.4                    | 9.0               |
| Diamond-Crater Summit              | 3/25           | 30               | 10.2              | 21.7                   | 31.9              |
| Diamond Lake                       | 3/25           | 3                | 1.2               | 10.8                   | 21.3              |
| Diamond Lake Plw. (T)              | N/R            |                  |                   |                        |                   |
| Diamond Lake Plw. (S)              | 3/25           | 0                | 0.0               | 11.1                   | --                |
| Diamond Lake Plw. (M)              | 3/25           | --               | 0.0               | 4.2                    | --                |
| Fish Lake                          | 3/27           | 7                | 2.2               | 6.0                    | 12.9              |
| Fish Lake Pillow (T)               | N/R            |                  |                   |                        |                   |
| Fish Lake Pillow (S)               | 3/27           | 3                | 0.6               | 7.7                    | --                |
| Fish Lake Pillow (M)               | N/R            |                  |                   |                        |                   |
| Fourmile Lake                      | 3/26           | 19               | 8.3               | 14.8                   | 24.2              |
| Fourmile Lake Pillow (T)           | 4/1            | --               | 12.0              | 23.3                   | --                |
| Fourmile Lake Pillow (S)           | 3/26           | 36               | 13.2              | 21.0                   | --                |
| Fourmile Lake Pillow (M)           | 3/26           | --               | 11.3              | 22.8                   | --                |
| Grayback Peak                      | 3/24           | 8                | 2.9               | 15.1                   | 25.0              |
| Howard Prairie Reservoir           | 3/31           | 0                | 0.0               | 2.1                    | 7.6               |
| Hyatt Prairie                      | 3/31           | 0                | 0.0               | 1.6                    | 7.0               |
| Hyatt Prairie Pillow (T)           | N/R            |                  |                   |                        |                   |
| Hyatt Prairie Pillow (S)           | 3/31           | 0                | 0.0               | 2.8                    | --                |
| Hyatt Prairie Pillow (M)           | 3/31           | --               | 0.0               | 2.4                    | --                |
| King Mountain #1                   | 3/30           | 0                | 0.0               | 4.2                    | 5.6 <sup>b</sup>  |
| King Mountain #2                   | 3/30           | 0                | 0.0               | 2.8                    | 6.6 <sup>b</sup>  |
| King Mountain #2 Plw.(T)           | 3/30           | --               | 0.0               | --                     | --                |
| King Mountain #2 Plw.(S)           | 3/30           | 0                | 0.0               | --                     | --                |
| King Mountain #2 Plw.(M)           | 3/30           | --               | 0.0               | --                     | --                |
| King Mountain #3                   | 3/30           | 0                | 0.0               | 0.0                    | 0.6 <sup>b</sup>  |
| King Mountain #4                   | 3/30           | 0                | 0.0               | 0.0                    | --                |
| King Mountain #5                   | 3/30           | 0                | 0.0               | 0.0                    | --                |
| King Mountain #6                   | 3/30           | 0                | 0.0               | 0.0                    | --                |
| Little Red Mountain                | DISCONTINUED   |                  |                   |                        |                   |
| Mt. Ashland Switchback             | 3/27           | 58               | 20.2              | 30.5                   | 36.4 <sup>b</sup> |
| Mule Creek                         | 3/30           | 0                | 0.0               | 3.2                    | 7.9 <sup>b</sup>  |
| North Umpqua                       | 3/31           | 0                | 0.0               | 1.9                    | 14.2              |
| Page Mountain                      | 3/26           | 0                | 0.0               | 3.0                    | 3.7               |
| Park Headquarters                  | 4/1            | 97               | 33.4              | 53.6 <sup>a</sup>      | 62.7              |
| Red Butte #1                       | 3/30           | 8                | 1.2               | 8.4                    | 16.7              |
| Red Butte #2                       | 3/30           | 5                | 1.0               | 5.8                    | 9.8               |
| Red Butte #3                       | 3/30           | 0                | 0.0               | 0.0                    | 5.0               |
| Red Butte #4                       | 3/30           | 0                | 0.0               | 0.0                    | 2.5               |
| Red Butte #5                       | 3/30           | 0                | 0.0               | 0.0                    | 0.1               |
| Red Butte #6                       | 3/30           | 0                | 0.0               | 0.0                    | --                |
| Seven Mile                         | 3/31           | 48               | 15.3              | 25.2                   | 34.3 <sup>b</sup> |
| Seven Mile Pillow (T)              | N/R            |                  |                   |                        |                   |
| Seven Mile Pillow (S)              | 3/31           | 34               | 10.8              | 22.4                   | --                |
| Seven Mile Pillow (M)              | 3/31           | --               | 12.9              | 24.5                   | --                |
| Silver Burn                        | 4/1            | 2                | 0.2               | 0.0                    | 12.0              |
| Siskiyou Summit                    | 3/26           | 0                | 0.0               | 0.1                    | 4.8               |
| Ski Bowl Road                      | 3/27           | 40               | 14.6              | 25.2                   | 31.0 <sup>b</sup> |
| South Fork Canal                   | 4/1            | TR               | 0.1               | 0.0                    | 0.9               |
| Trap Creek                         | 3/31           | 0                | 0.0               | 1.7                    | 12.2              |

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE | THIS YEAR      |                  |                   | PAST RECORD            |                   |
|-----------------------------------|----------------|------------------|-------------------|------------------------|-------------------|
|                                   | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |                   |
|                                   |                |                  |                   | Last Yr.               | Ave. <sup>c</sup> |
| KLAMATH WATERSHEDS<br>AREA 10     |                |                  |                   |                        |                   |
| Annie Spring                      | 4/1            | 69               | 23.8              | 38.3                   | 46.7              |
| Billie Creek Divide               | 3/27           | 6                | 2.3               | 14.6                   | 21.8              |
| Billie Cr. Div. Plw.(T)           | 3/27           | --               | 4.5               | 15.8                   | --                |
| Billie Cr. Div. Plw.(S)           | 3/27           | 13               | 5.1               | 15.0                   | --                |
| Billie Cr. Div. Plw.(M)           | 3/27           | --               | 4.4               | 14.6                   | --                |
| Chemult Alternate                 | 3/31           | 0                | 0.0               | 0.7                    | 9.0               |
| Chemult Alternate Plw.(T)         | N/R            |                  |                   |                        |                   |
| Chemult Alternate Plw.(S)         | 3/31           | 0                | 0.0               | 0.0                    | --                |
| Chemult Alternate Plw.(M)         | 3/31           | --               | 0.0               | 0.0                    | --                |
| Cold Springs Camp                 | 3/30           | 51               | 18.0              | 26.9                   | 35.6              |
| Cold Springs Camp Plw.(T)         | N/R            |                  |                   | --                     | 31.4 <sup>b</sup> |
| Cold Springs Camp Plw.(S)         | 3/30           | 25               | 7.0               | 18.8                   | --                |
| Cold Springs Camp Plw.(M)         | 3/30           | --               | 6.8               | 20.6                   | --                |
| Crazyman Flat *                   | 3/28           | 12               | 2.9               | 11.6                   | 9.9               |
| Crowder Flat (Calif.) *           | 3/28           | 3                | 0.3               | 0.0                    | 1.9               |
| Crystal (PP&L)                    | 3/29           | 0                | 0.0               | 0.0                    | 6.8 <sup>b</sup>  |
| Diamond-Crater Summit             | 3/25           | 30               | 10.2              | 21.7                   | 31.9              |
| Dog Hollow *                      | 3/28           | 0                | 0.0               | 0.0                    | 0.8               |
| Finley Corrals *                  | 3/28           | 21               | 6.1               | 16.8                   | 16.1 <sup>b</sup> |
| Fort Klamath (PP&L)               | 3/29           | 0                | 0.0               | 0.0                    | 1.8 <sup>b</sup>  |
| Fourmile Lake                     | 3/26           | 19               | 8.3               | 14.8                   | 24.2              |
| Fourmile Lake Plw.(T)             | 4/1            | --               | 12.0              | 23.3                   | --                |
| Fourmile Lake Plw.(S)             | 3/26           | 36               | 13.2              | 21.0                   | --                |
| Fourmile Lake Plw.(M)             | 3/26           | --               | 11.3              | 22.8                   | --                |
| Gerber                            | 4/1            | 0                | 0.0               | 0.0                    | 0.9 <sup>b</sup>  |
| Harriman (PP&L)                   | 3/29           | 0                | 0.0               | 0.0                    | 2.3 <sup>b</sup>  |
| Howard Prairie                    | 3/31           | 0                | 0.0               | 2.1                    | 7.6               |
| Hyatt Prairie Reservoir           | 3/31           | 0                | 0.0               | 1.6                    | 7.0               |
| Hyatt Prairie Res.Plw.(T)         | N/R            |                  |                   |                        |                   |
| Hyatt Prairie Res.Plw.(S)         | 3/31           | 0                | 0.0               | 2.8                    | --                |
| Hyatt Prairie Res.Plw.(M)         | 3/31           | --               | 0.0               | 2.4                    | --                |
| Park Headquarters                 | 4/1            | 97               | 33.4              | 53.6 <sup>a</sup>      | 62.7              |
| Quartz Mountain                   | 3/30           | 0                | 0.0               | 5.6                    | 4.5               |
| Quartz Mtn. Pillow (T)            | N/R            |                  |                   |                        |                   |
| Quartz Mtn. Pillow (S)            | 3/30           | 5                | 1.0               | 6.8                    | --                |
| Quartz Mtn. Pillow (M)            | 3/30           | --               | 1.3               | 8.1                    | --                |
| Seven Mile                        | 3/31           | 48               | 15.3              | 25.2                   | 34.3 <sup>b</sup> |
| Seven Mile Pillow (T)             | N/R            |                  |                   |                        |                   |
| Seven Mile Pillow (S)             | 3/31           | 34               | 10.8              | 22.4                   | --                |
| Seven Mile Pillow (M)             | 3/31           | --               | 12.9              | 24.5                   | --                |
| State Line (Calif.) *             | 3/28           | 3                | 0.3               | 5.6                    | 6.9               |
| Strawberry                        | 3/26           | 13               | 3.1               | 7.2                    | 6.4               |
| Strawberry Pillow (T)             | N/R            |                  |                   |                        |                   |
| Strawberry Pillow (S)             | 3/26           | 10               | 1.5               | 6.2                    | --                |
| Strawberry Pillow (M)             | 3/26           | --               | 0.9               | 6.6                    | --                |
| Summer Rim *                      | 3/28           | 36               | 11.1              | 19.7                   | 16.6 <sup>b</sup> |
| Summer Rim                        | 3/30           | 36               | 11.1              | 18.4                   | 16.6              |
| Summer Rim Pillow (T)             | 3/30           | --               | 12.2              | 19.5                   | --                |
| Summer Rim Pillow (S)             | 3/30           | 34               | 10.8              | 18.5                   | 17.2 <sup>b</sup> |
| Summer Rim Pillow (M)             | 3/30           | --               | 13.9              | 21.7                   | 17.5 <sup>b</sup> |
| Sycan Flat *                      | 3/28           | 0                | 0.0               | 0.0                    | 5.3 <sup>b</sup>  |
| Taylor Butte                      | 3/26           | TR               | 0.1               | 0.0                    | 3.3               |
| Taylor Butte Pillow (T)           | 3/26           | --               | 0.9               | --                     | --                |
| Taylor Butte Pillow (S)           | 3/26           | 1                | 0.2               | 0.0                    | --                |
| Taylor Butte Pillow (M)           | 3/26           | --               | 0.3               | 0.0                    | --                |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 1

APRIL 1, 1981

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE          | THIS YEAR      |                  |                   | PAST RECORD            |                   |
|--|----------------|------------------|-------------------|------------------------|-------------------|
|  | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |                   |
|  |                |                  |                   | Last Yr.               | Ave. C            |
| LAKE COUNTY, GOOSE LAKE WATERSHEDS AREA 11 |                |                  |                   |                        |                   |
| Adin Mountain (Calif.)                     | 3/26           | 15               | 3.2               | 17.8                   | 12.2              |
| Bald Mountain (Nev.)                       | 3/28           | 0                | 0.0               | 8.6                    | 2.4               |
| Bear Flat Meadow *                         | 3/28           | 19               | 5.5               | 16.9                   | 9.9               |
| Camas Creek #1                             | 3/30           | 6                | 2.0               | 9.9                    | 8.5               |
| Camas Creek #2                             | 3/30           | 11               | 3.5               | 13.0                   | --                |
| Cedar Pass (Calif.)                        | 3/24           | 25               | 9.8               | 27.1                   | 16.3              |
| Colvin Creek *                             | 3/28           | 8                | 2.3               | 8.7                    | 4.4 <sup>b</sup>  |
| Cox Flat *                                 | 3/28           | 0                | 0.0               | 1.2                    | 6.4               |
| Crowder Flat (Calif.) *                    | 3/28           | 3                | 0.3               | 0.0                    | 1.9               |
| Dismal Swamp (Calif.) *                    | 3/28           | 66               | 24.5              | 36.3                   | --                |
| Dismal Swamp (Calif.)                      | 3/31           | 68               | 25.0              | --                     | --                |
| (ground reading at AM)                     |                |                  |                   |                        |                   |
| Dismal Swamp #2 Plw.(T)                    | N/R            |                  |                   |                        |                   |
| Dismal Swamp #2 Plw.(S)                    | 3/31           | 59               | 21.9              | 36.0                   | --                |
| Dismal Swamp #2 Plw.(M)                    | N/R            |                  |                   | 38.3                   | --                |
| Finley Corrals *                           | 3/28           | 21               | 6.1               | 16.8                   | 16.1 <sup>b</sup> |
| Hart Mountain *                            | 3/28           | 0                | 0.0               | 3.6                    | 1.4               |
| Little Bally Mtn. (Nev.)                   | 3/28           | 1                | 0.1               | 7.7                    | 1.9               |
| Mt. Bidwell (Calif.)                       | 3/27           | 60               | 19.8              | 37.7                   | 26.0 <sup>b</sup> |
| North Star (Calif.)                        | 3/27           | 40               | 13.0              | 23.5                   | 16.1 <sup>b</sup> |
| Patton Meadows *                           | 3/28           | 35               | 10.1              | 23.8                   | 17.8              |
| Quartz Mountain                            | 3/30           | 0                | 0.0               | 5.6                    | 4.5               |
| Quartz Mountain Plw.(T)                    | N/R            |                  |                   |                        |                   |
| Quartz Mountain Plw.(S)                    | 3/30           | 5                | 1.0               | 6.8                    | --                |
| Quartz Mountain Plw.(M)                    | 3/30           | --               | 1.3               | 8.1                    | --                |
| Reservation Creek (Calif.)                 | 3/31           | 18               | 7.5               | 16.8                   | 10.5              |
| Rogger Meadows *                           | 3/28           | 19               | 4.8               | 20.9                   | --                |
| Sherman Valley *                           | 3/28           | 32               | 8.0               | 19.0                   | 11.8              |
| Silver Creek                               | 3/26           | 0                | 0.0               | 0.0                    | 1.1               |
| Silver Creek Plw.(T)                       | 4/1            | --               | 1.6               | --                     | --                |
| Silver Creek Plw.(S)                       | 3/30           | 15               | 6.0               | 6.5                    | --                |
| Silver Creek Plw.(M)                       | N/R            |                  |                   | 6.9                    | --                |
| State Line (Calif.) *                      | 3/28           | 3                | 0.3               | 5.6                    | 6.9               |
| Strawberry                                 | 3/26           | 13               | 3.1               | 7.2                    | 6.4               |
| Strawberry Plw.(T)                         | N/R            |                  |                   |                        |                   |
| Strawberry Plw.(S)                         | 3/26           | 10               | 1.5               | 6.2                    | --                |
| Strawberry Plw.(M)                         | 3/26           | --               | 0.9               | 6.6                    | --                |
| Summer Rim *                               | 3/28           | 36               | 11.1              | 19.7                   | 16.6 <sup>b</sup> |
| Summer Rim                                 | 3/30           | 36               | 11.1              | 18.4                   | 16.6              |
| Summer Rim Plw.(T)                         | 3/30           | --               | 12.2              | 19.5                   | --                |
| Summer Rim Plw.(S)                         | 3/30           | 34               | 10.8              | 18.5                   | 17.2 <sup>b</sup> |
| Summer Rim Plw.(M)                         | 3/30           | --               | 13.9              | 21.2                   | 17.5 <sup>b</sup> |
| Sycan Flat *                               | 3/28           | 0                | 0.0               | 0.0                    | 5.3 <sup>b</sup>  |

## SNOW

| DRAINAGE BASIN and/or SNOW COURSE  | THIS YEAR      |                  |                   | PAST RECORD            |                   |
|--|----------------|------------------|-------------------|------------------------|-------------------|
|  | Date of Survey | Snow Depth (In.) | Water Cont. (In.) | Water Content (Inches) |                   |
|  |                |                  |                   | Last Yr.               | Ave. C            |
| HARNEY BASIN WATERSHEDS<br>AREA 12   |                |                  |                   |                        |                   |
| Blue Mountain Springs  | 4/1            | 36               | 11.8              | 14.2                   | 16.0              |
| Blue Mtn. Spgs. Plw.(T)  | N/R            |                  |                   | 20.1                   | --                |
| Blue Mtn. Spgs. Plw.(S)  | 4/1            | 34               | 10.5              | 15.0                   | 13.8 <sup>b</sup> |
| Blue Mtn. Spgs. Plw.(M)  | 4/1            | --               | 11.0              | 20.2                   | 12.2 <sup>b</sup> |
| Buck Pasture *   | Late Report    |                  |                   | 0.1                    | 1.8               |
| Buckskin Lake *  | Late Report    |                  |                   | 0.0                    | --                |
| Call Meadows *   | Late Report    |                  |                   | 2.2                    | 2.7               |
| Delintment Lake  | 3/30           | 11               | 3.5               | 9.0                    | 5.6               |
| Denio Creek *  | Late Report    |                  |                   | 0.1                    | 0.2               |
| Disaster Peak (Nev.)   | 3/31           | 0                | 0.0               | --                     | 10.9              |
| Emigrant Butte   | 3/30           | 0                | 0.0               | 0.1                    | 1.6               |
| Fish Creek *   | Late Report    |                  |                   | 35.6                   | 20.3 <sup>b</sup> |
| Fish Creek   | 4/1            | --               | 24.0              | 33.6                   | 26.1              |
| Fish Creek (Rev.)  | 4/1            | 74               | 23.7              | 33.0                   | 26.1              |
| Fish Creek Plw.(T)   | N/R            |                  |                   | 36.8                   | --                |
| Fish Creek Plw.(S)   | 4/1            | 75               | 24.0              | --                     | --                |
| Fish Creek Plw.(M)   | 4/1            | --               | 20.8              | 35.1                   | 25.9 <sup>b</sup> |
| Gov't. Corrals   | 4/1            | 46               | 14.3              | --                     | --                |
| Hart Mountain *  | 3/28           | 0                | 0.0               | 3.6                    | 1.4               |
| Idlewild Camp Alt.   | 3/30           | 0                | 0.0               | 0.1                    | 1.4 <sup>b</sup>  |
| Izee Summit  | 3/31           | 11               | 4.8               | 8.0                    | 6.6               |
| Lake Creek R.S.  | 4/1            | 17               | 5.8               | 10.4                   | 9.2               |
| Lake Creek R.S. Plw.(T)  | N/R            |                  |                   | 14.7                   | --                |
| Lake Creek R.S. Plw.(S)  | 4/1            | 19               | 6.5               | 12.5                   | --                |
| Lake Creek R.S. Plw.(M)  | N/R            |                  |                   | 14.8                   | --                |
| Oregon Canyon *  | Late Report    |                  |                   | 8.9                    | 3.8               |
| Rock Springs   | 3/31           | 5                | 2.2               | 4.8                    | 4.3               |
| Rock Springs Plw.(T)   | 3/31           | --               | 0.6               | --                     | --                |
| Rock Springs Plw.(S)   | 3/31           | 1                | 0.1               | 5.0                    | --                |
| Rock Springs Plw.(M)   | 3/31           | --               | 0.4               | 2.8                    | --                |
| Silvies *  | Late Report    |                  |                   | 10.4                   | 8.7 <sup>b</sup>  |
| Silvies  | 4/1            | 39               | 12.9              | 17.5                   | 12.9              |
| Silvies Pillow (T)   | 4/1            | --               | 11.8              | --                     | --                |
| Silvies Pillow (S)   | 4/1            | 37               | 11.0              | 13.0                   | --                |
| Silvies Pillow (M)   | 4/1            | --               | 11.9              | 8.3                    | 21.9 <sup>b</sup> |
| Snow Mountain  | 3/30           | 27               | 9.0               | 12.0                   | 12.1              |
| Snow Mountain Plw.(T)  | 3/30           | --               | 6.8               | 13.4                   | --                |
| Snow Mountain Plw.(S)  | 3/30           | 29               | 8.7               | 9.8                    | 11.0 <sup>b</sup> |
| Snow Mountain Plw.(M)  | 3/30           | --               | 5.6               | 11.1                   | --                |
| Starr Ridge  | 3/31           | 3                | 1.2               | 4.6                    | 4.6               |
| Starr Ridge Pillow (T)   | 3/31           | --               | 0.5               | --                     | --                |
| Starr Ridge Pillow (S)   | 3/31           | 1                | 0.1               | 5.0                    | --                |
| Starr Ridge Pillow (M)   | 3/31           | --               | 0.4               | 3.2                    | --                |
| Stinking Water   | 4/1            | 0                | 0.0               | 0.0                    | 0.8 <sup>b</sup>  |
| Trout Creek *  | Late Report    |                  |                   | 16.2                   | 7.6               |
| "V" Lake *   | Late Report    |                  |                   | 10.4                   | 6.5               |
| * Aerial<br>N/R No Report<br>TR Trace<br>T = Telemetry Measurement<br>S = Snow Tube Measurement<br>M = Manometer Measurement |                |                  |                   |                        |                   |

\* Aerial

N/R No Report

TR Trace

T = Telemetry Measurement

S = Snow Tube Measurement

M = Manometer Measurement

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 2

APRIL 1, 1981

## PRECIPITATION (Inches)

| DRAINAGE BASIN and PRECIPITATION GAGE LOCATION | ELEVATION | CURRENT INFORMATION  |               | PAST RECORD |                      |
|--|-----------|----------------------|---------------|-------------|----------------------|
|  |           | Date of Reading      | Precipitation | Last Year   | Average <sup>c</sup> |
| Aneroid Lake #2 (Wallowa County)               | 7300      | From 2/25<br>To 4/1  | 4.56"         |             |                      |
| Arbuckle Mountain (Morrow County)              | 5400      | From 2/24<br>To 3/27 | 5.12"         |             |                      |
| Beaver Reservoir (Union County)                | 5150      | From 2/26<br>To 3/31 | 3.60"         |             |                      |
| Bigelow Camp (Josephine County)                | 5120      | From 2/23<br>To 3/24 | 5.40"         |             |                      |
| Big Red Mountain (Jackson County)              | 6250      | From 2/23<br>To 3/27 | 4.92"         |             |                      |
| Billie Creek Divide (Jackson County)           | 5310      | From 1/27<br>To 3/27 | 9.12"         |             |                      |
| Blue Mountain Springs (Grant County)           | 5900      | From 2/24<br>To 4/1  | 3.96"         |             |                      |
| Bourne (Baker County)                          | 5800      | From 2/25<br>To 3/28 | 0.96"         |             |                      |
| Bowman Springs (Union County)                  | 4580      | From 2/24<br>To 3/27 | 4.00"         |             |                      |
| Cascade Summit (Lane County)                   | 4880      | From 2/27<br>To 3/25 | 3.48"         |             |                      |
| Chemult (Klamath County)                       | 4760      | From 2/27<br>To 3/31 | 1.68"         |             |                      |
| Clackamas Lake (Clackamas County)              | 3400      | From 6/19<br>To 3/30 | 32.40"        |             |                      |
| Clear Lake (Wasco County)                      | 3500      | From 2/26<br>To 3/30 | 2.28"         |             |                      |
| Cold Springs (Klamath County)                  | 6100      | From 2/24<br>To 3/30 | 5.16"         |             |                      |
| County Line (Umatilla County)                  | 4800      | From 2/24<br>To 3/27 | 3.48"         |             |                      |
| Daly Lake (Linn County)                        | 3600      | From 2/27<br>To 4/1  | 5.64"         |             |                      |
| Derr (Wheeler County)                          | 5670      | From 3/2<br>To 3/30  | 3.12"         |             |                      |
| Diamond Lake (Douglas County)                  | 4600      | From 2/25<br>To 3/25 | 3.00"         |             |                      |
| Emigrant Springs (Umatilla County)             | 3925      | From 2/24<br>To 3/27 | 4.56"         |             |                      |
| Fish Creek (Harney County)                     | 7900      | From 2/24<br>To 4/1  | 7.20"         |             |                      |
| Fish Lake (Jackson County)                     | 4665      | From 2/26<br>To 3/27 | 3.48"         |             |                      |
| Fourmile Lake (Klamath County)                 | 6000      | From 2/26<br>To 3/26 | 4.44"         |             |                      |
| Gold Center (Grant County)                     | 5340      | From 2/25<br>To 3/28 | 2.16"         |             |                      |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



# BASIC DATA SUPPLEMENT 2

APRIL 1, 1981

## PRECIPITATION (Inches)

| DRAINAGE BASIN and PRECIPITATION GAGE LOCATION | ELEVATION | CURRENT INFORMATION  |               | PAST RECORD |                      |
|--|-----------|----------------------|---------------|-------------|----------------------|
|  |           | Date of Reading      | Precipitation | Last Year   | Average <sup>c</sup> |
| Greenpoint (Hood River County)                 | 3200      | From 2/24<br>To 3/25 | 2.64"         |             |                      |
| High Ridge (Umatilla County)                   | 4150      | From 2/26<br>To 3/31 | 6.36"         |             |                      |
| Hogg Pass (Jefferson County)                   | 4755      | From 2/26<br>To 3/27 | 5.16"         |             |                      |
| Holland Meadows (Lane County)                  | 4900      | From 2/27<br>To 4/2  | 6.84"         |             |                      |
| Hyatt Prairie (Jackson County)                 | 4900      | From 2/28<br>To 3/31 | 2.84"         |             |                      |
| Irish-Taylor (Deschutes County)                | 5500      | From 2/27<br>To 3/31 | 5.64"         |             |                      |
| Jump Off Joe (Linn County)                     | 3400      | From 2/26<br>To 3/27 | 5.40"         |             |                      |
| King Mountain (Douglas County)                 | 4500      | From 2/26<br>To 3/30 | 6.36"         |             |                      |
| Lake Creek (Grant County)                      | 5120      | From 2/24<br>To 4/1  | 3.00"         |             |                      |
| Lucky Strike (Umatilla County)                 | 5050      | From 2/24<br>To 3/27 | 5.12"         |             |                      |
| Madison Butte (Morrow County)                  | 5250      | From 2/24<br>To 3/27 | 3.72"         |             |                      |
| Marion Forks (Linn County)                     | 2730      | From 2/26<br>To 3/27 | 4.44"         |             |                      |
| McKenzie (Lane County)                         | 5000      | From 2/28<br>To 3/29 | 3.84"         |             |                      |
| Mt. Hood Test Site (Clackamas County)          | 5400      | From 2/25<br>To 3/26 | 4.25"         |             |                      |
| Mt. Howard (Wallowa County)                    | 7910      | From 2/25<br>To 3/28 | 2.76"         |             |                      |
| Mud Ridge (Clackamas County)                   | 4050      | From 2/26<br>To 3/30 | 4.32"         |             |                      |
| New Crescent Lake (Klamath County)             | 4800      | From 2/26<br>To 3/30 | 2.04"         |             |                      |
| Ochoco Meadows (Crook County)                  | 5200      | From 2/27<br>To 3/31 | 3.12"         |             |                      |
| Quartz (Lake County)                           | 6300      | From 2/24<br>To 3/30 | 4.08"         |             |                      |
| Railroad Overpass (Lane County)                | 2750      | From 2/25<br>To 3/26 | 3.36"         |             |                      |
| Roaring River (Lane County)                    | 4900      | From 2/27<br>To 3/31 | 5.04"         |             |                      |
| Rock Springs (Grant County)                    | 5100      | From 2/23<br>To 3/31 | 2.64"         |             |                      |
| Salt Creek Falls (Lane County)                 | 4000      | From 2/27<br>To 3/26 | 3.84"         |             |                      |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

# BASIC DATA SUPPLEMENT 2

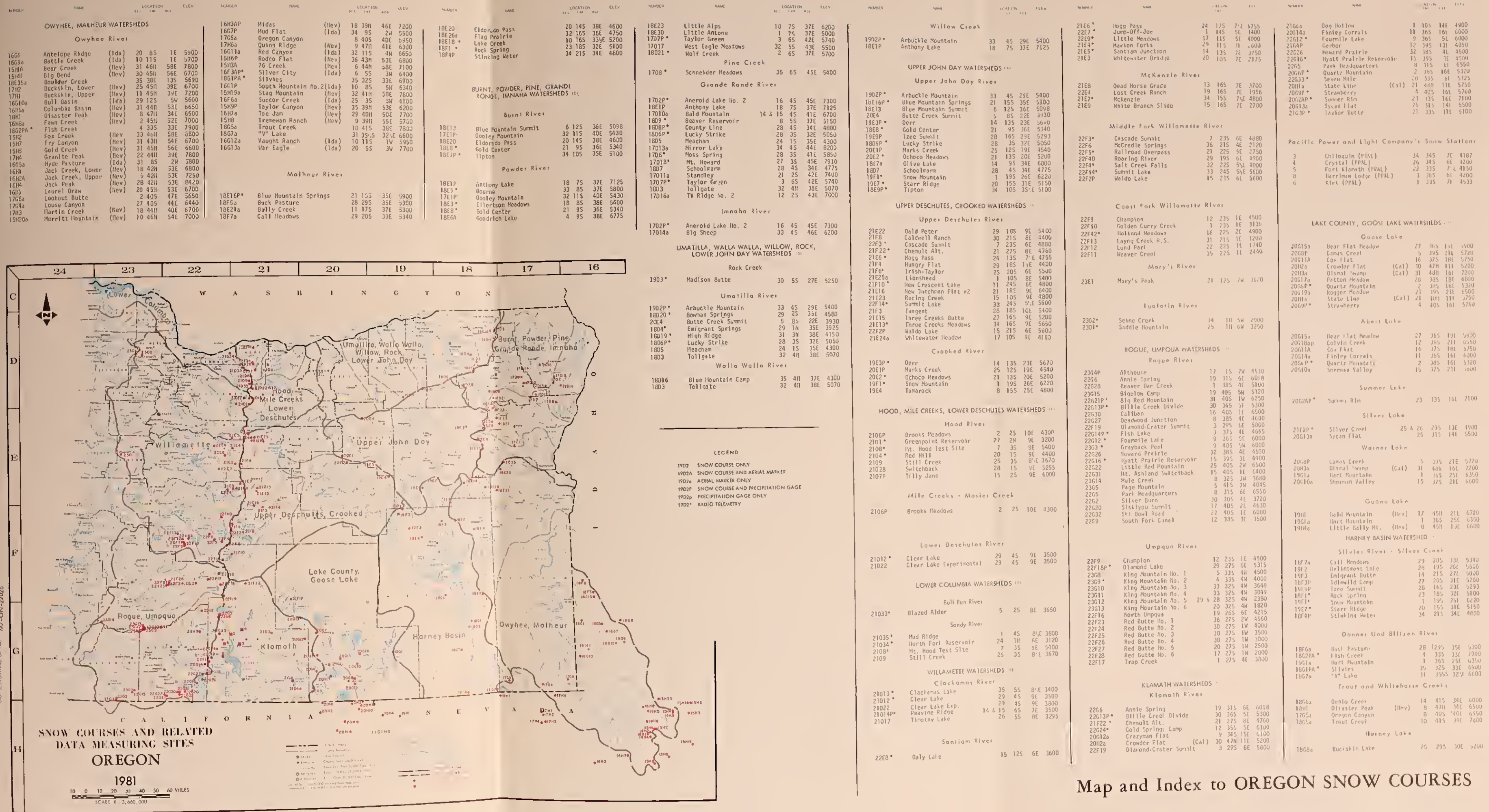
APRIL 1, 1981

## PRECIPITATION (Inches)

| DRAINAGE BASIN and PRECIPITATION GAGE LOCATION | ELEVATION | CURRENT INFORMATION  |               | PAST RECORD |         |
|--|-----------|----------------------|---------------|-------------|---------|
|  |           | Date of Reading      | Precipitation | Last Year   | Average |
| Santiam Junction (Lane County)                 | 3750      | From 2/26<br>To 3/27 | 4.20"         |             |         |
| Schneider Meadows (Baker County)               | 5400      | From 2/25<br>To 3/28 | 3.60"         |             |         |
| Seven Mile (Klamath County)                    | 5725      | From 2/25<br>To 3/31 | 6.60"         |             |         |
| Silver Creek (Lake County)                     | 5720      | From 2/25<br>To 3/30 | 4.32"         |             |         |
| Silvies (Harney County)                        | 6900      | From 2/24<br>To 4/1  | 3.00"         |             |         |
| Snow Mountain (Grant County)                   | 6220      | From 2/27<br>To 3/30 | 3.75"         |             |         |
| Starr Ridge (Grant County)                     | 5156      | From 2/23<br>To 3/31 | 2.64"         |             |         |
| Strawberry (Lake County)                       | 5760      | From 2/27<br>To 3/26 | 3.36"         |             |         |
| Summer Rim (Lake County)                       | 7100      | From 2/27<br>To 3/30 | 3.36"         |             |         |
| Summit Lake (Klamath County)                   | 5600      | From 2/26<br>To 3/30 | 6.24"         |             |         |
| Taylor Butte (Klamath County)                  | 5040      | From 2/27<br>To 3/26 | 1.92"         |             |         |
| Taylor Green (Baker County)                    | 5740      | From 2/25<br>To 3/28 | 3.12"         |             |         |
| Three Creek Meadows (Deschutes County)         | 5650      | From 2/25<br>To 3/27 | 1.68"         |             |         |
| Tipton (Baker County)                          | 5100      | From 2/25<br>To 3/28 | 2.52"         |             |         |
| Wolf Creek (Union County)                      | 5700      | From 2/24<br>To 3/28 | 1.56"         |             |         |

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.





Map and Index to OREGON SNOW COURSES





# The Following Organizations Cooperate in the Oregon Snow Survey Work

## STATE

*Idaho Cooperative Snow Surveys*  
*Nevada Cooperative Snow Surveys*  
*Oregon State University*  
*Oregon Department of Water Resources*  
*Soil and Water Conservation District of Oregon*

## COUNTY

*Douglas County Water Resources Survey*

## FEDERAL

*Department of Agriculture*  
*Cooperative Extension Service*  
*Forest Service*  
*Soil Conservation Service*  
*Department of Army*  
*Corps of Engineers*  
*Department of Commerce*  
*NOAA, National Weather Service*  
*Department of Energy*  
*Bonneville Power Administration*  
*Department of the Interior*  
*Bureau of Land Management*  
*Fish and Wildlife Service*  
*Geological Survey*  
*Water and Power Resources Service*

## PUBLIC UTILITIES

*Pacific Power and Light Company*  
*Portland General Electric Company*  
*California-Pacific National*

## MUNICIPALITIES

*City of Baker*  
*City of La Grande*  
*City of Portland*  
*City of The Dalles*  
*City of Walla Walla*

## IRRIGATION DISTRICTS

*Arnold Irrigation District*  
*Associated Ditch Companies*  
*Burnt River Irrigation District*  
*Central Oregon Irrigation District*  
*East Fork Irrigation District*  
*Grants Pass Irrigation District*  
*Hood River Irrigation District*  
*Jordan Valley Irrigation District*  
*Juniper Flat Irrigation District*  
*Lakeview Water Users, Incorporated*  
*Medford Irrigation District*  
*Middle Fork Irrigation District*  
*North Board of Control - Owyhee Project*  
*Ochoco Irrigation District*  
*Rogue River Valley Irrigation District*  
*South Board of Control - Owyhee Project*  
*Squaw Creek Irrigation District*  
*Talent Irrigation District*  
*Tumalo Project*  
*Vale - Oregon Irrigation District*  
*Warmsprings Irrigation District*

## PRIVATE ORGANIZATIONS

*The Crag Rats, Hood River, Oregon*

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